

THE NATION'S SCHOOLS



Streamlining Chicago's School System

Catherine Calder Mulberry

School-Made Teaching Materials

Maurice F. Seay

Basic Research Urgently Needed

J. C. Holy

There's a Place for Statistics in General
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Schoolhouse Planning for Three Climates

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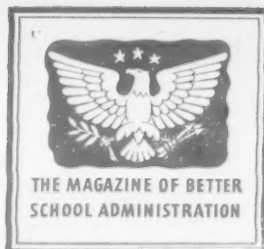
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THE NATION'S SCHOOLS



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AMONG THE AUTHORS



Mrs. Mulberry

CATHARINE CULVER MULBERRY has been honored by Beta Sigma Phi as "First Lady of the Year" in civic service. Leaders of Chicago's civic groups awarded her this distinction in 1945. Mrs. Mulberry identifies herself as a "housewife." But her household duties during the last twenty-eight years have been intermingled with many civic activities. Since

September 1946, she has been a member of the Chicago Board of Education. She was one of the first group of 12 named by the mayor's nominating commission, from which Mayor Kelly appointed six to the board. Her appointment filled an unexpired term of eight months. At its termination in May 1947, she was again recommended by the nominating commission and reappointed for a full five year term by the present mayor, Martin H. Kennelly.

Mrs. Mulberry was state president of the Illinois Congress of Parents and Teachers, 1938-40, and when legislation chairman and national library chairman during 1940-46, she also served on the National Congress of Parents and Teachers executive committee. She was chairman of the Illinois Women's Conference on Legislation, 1942-45; president of the Woman's City Club of Chicago, 1943-46; president of Illinois' Commission for the Handicapped, 1942-46, and a member of Illinois' Board of Public Welfare Commissioners, 1945-46.

In private life, she is Mrs. Harry M. Mulberry. A native of Chicago, she attended the public schools. Her B.A. degree is from the University of Wisconsin.

DOUGLAS E. SCATES of Dunham, N. C., has been immersed in research, statistics, psychological and allied subjects ever since his graduation from Whitworth College, Spokane, Wash., in 1922. He is president of the American Educational Research Association. A native son of California, his career has taken him to Chicago where he was an instructor in the department of education at the University of Chicago; to Bloomington, Ind., where he was assistant professor of education at the state university; to Cincinnati as director of research and statistics of the city schools, and finally to Durham, where he is professor of education at Duke University.



Douglas E. Scates



T. C. Holy

T. C. HOLY is director of the bureau of educational research and a professor at the College of Education, Ohio State University. The name was originally Holy, but on his grandfather's naturalization papers the clerk left out the "e" and it has remained out ever since. It's been a little embarrassing, he says, to enter church late just as the congregation rises and sings "Holy, Holy, Holy." He is a national authority on school organizations and has made surveys of the school systems of Co-

lumbus, Cleveland and other cities, as well as of several state institutions. Earlier he was director of the division of housing and equipment for the St. Louis public schools. Going to Ohio in 1927, he was in charge of the school plant rehabilitation program of the state department of education and in 1933-34 was school building consultant for the P.W.A. A native of Iowa, he has his B.A. degree from Des Moines College and master's and doctor's degrees from the State University of Iowa.



Judson T. Landis

JUDSON T. LANDIS is associate professor of sociology and anthropology at Michigan State College, East Lansing. Away from his teaching, he lives a bucolic life, indulging in several hobbies which change with the seasons: research and writing in the winter, tapping trees for sirup and putting up bird houses in the spring, raising chicks, gardening and harvesting the peach crop in the summer and storing crops in the fall. Much of his time now is devoted to developing one term of a course in effective living. Last year 3500 students registered for the course, which is a required basic study. Dr. Landis obtained his M.A. at the University of Michigan and his Ph.D. at Louisiana State University.

A. V. OVERN has been professor of education at the University of North Dakota since 1930. He obtained his B.A., M.S. and Ph.D. degrees from the University of Minnesota. His professional career has led him into various fields, starting with superintendencies at Hills and at Alden, Minn. When World War I came along, he joined the army. He resumed his school work in 1923 as principal of the high school at Hutchinson, Minn., after which he served successively as instructor in education at State College, Brookings, S. D., and head of the education department at Augsburg College, Minneapolis. He is a former president of the Northeast Division of the North Dakota Education Association and a former member of the board of the North Dakota State Credit Union League.



A. V. Overn

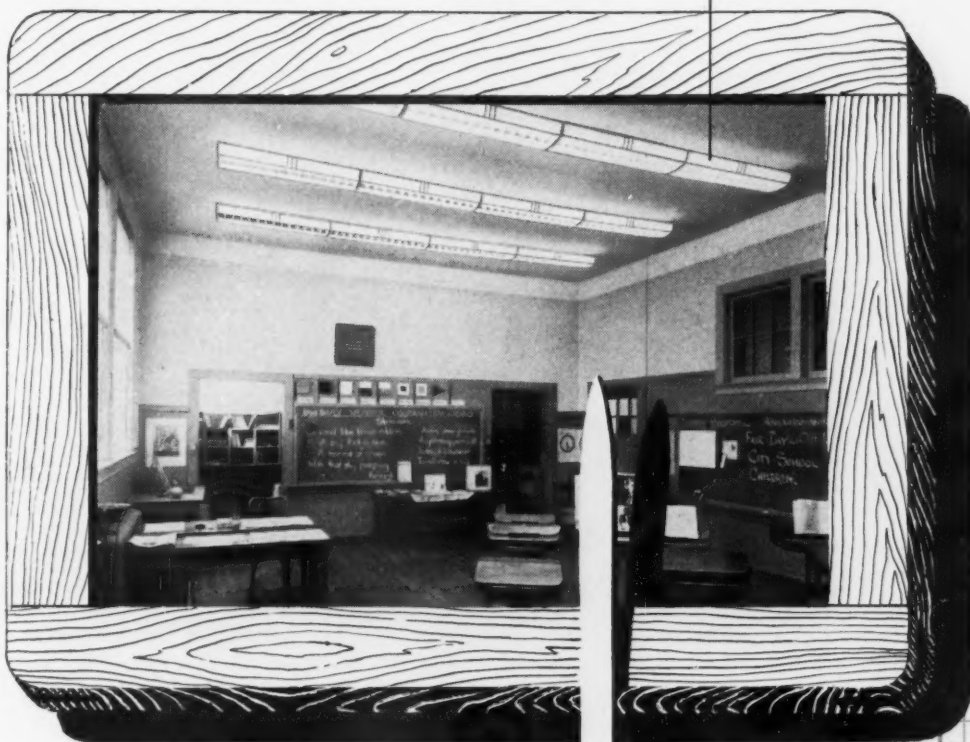


L. Harry Strauss

L. HARRY STRAUSS is executive secretary of the Commission on Motion Pictures in Adult Education in Chicago and a consultant on adult education for Teaching Films Custodians, Inc. Although he has an A.M. in library science from the Graduate Library School, University of Chicago, most of his career has been in the audio-visual field. He has been consultant for the National Council of the Y.M.C.A.'s and Associated Films and assistant to the director of education services of the Motion Picture Association of America, Inc.

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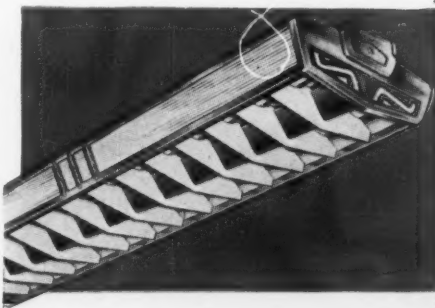
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"WHAT Every Pupil Should Know About Dances" is a four page leaflet compiled by the social behavior classes and distributed free by the student council at Toms River High School, Toms River, N. J. In terse language the 4 by 6 inch flyer covers such topics as: Why Do We Have Dances?; What Shall We Wear at Informal Dances?; Dance Etiquette, Do's and Don't's; Chaperons; Refreshments. Printed in the school colors, maroon and white, and coming from the pupils themselves, these suggestions have had more effect upon conduct at school parties than any number of admonitions from parents or faculty have had in the past.

The idea originated four years ago when pupils in social behavior classes, aroused by conduct at football games, felt that they should do something more than talk. The result was "What Every Pupil Should Know About Being a Spectator." During the following year appeared "What Every Pupil Should Know About Assemblies." This year's effort is, "What Every Pupil Should Know About Good Grooming."

One thing which visitors never fail to notice at the Toms River school is the good conduct of the pupils. The social behavior classes and their leaflets are one of the principal reasons for this happy condition.



WALTER B. HAMMER, principal of Estherville High School, Estherville, Iowa, believes that too many students consider going to high school simply as an end in itself. Mr. Hammer looks

beyond the day of graduation, however, and sees his boys and girls coming up against their first employer, and it is the employer he has his eye on.

For this reason an unusual opening day program has been held at Estherville for the last three years. The students this year met in the auditorium to hear five prominent businessmen discuss "What the Employer Expects of the High School Graduate." Five minutes were allowed each speaker. A discussion period ensued in which the speakers questioned each other and answered questions from students.

Follow-up projects based on the assembly program were later developed in the English and speech classes.

The theory behind all this? Mr. Hammer says, "If we succeed in guiding the student's thinking to the point where he recognizes the need for mastery of subject matter, the development of responsibility and promptness and the growth of character, which are the mark of a person of achievement, we have gone a long way in making the school year successful."



A CHILD says laconically, "Oh, you just don't understand." Then he shuts up like a clam and walks away. It's baffling and disconcerting. But parents do the same thing. They feel there's just no more use in talking; children don't understand. But how the members of each group talk among themselves!

This situation was made the basis of an experiment in the high school at Pompton Lakes, N. J., recently when Helen Lindsley, teacher, hit upon the idea of holding a panel discussion by a group of students on the relationship between parents and children, and of having it recorded. On the evening of the same day the recording was played

back to parents at a P.T.A. meeting. It provoked a lively discussion of points made by the students.

However, the parents' views were also recorded in the same manner and were played back on the following day to the students. Thus, each group heard the opinions of the other. The presence of even one parent at the students' discussion would have detracted from its naturalness and would have imposed a feeling of restraint on the boys and girls.

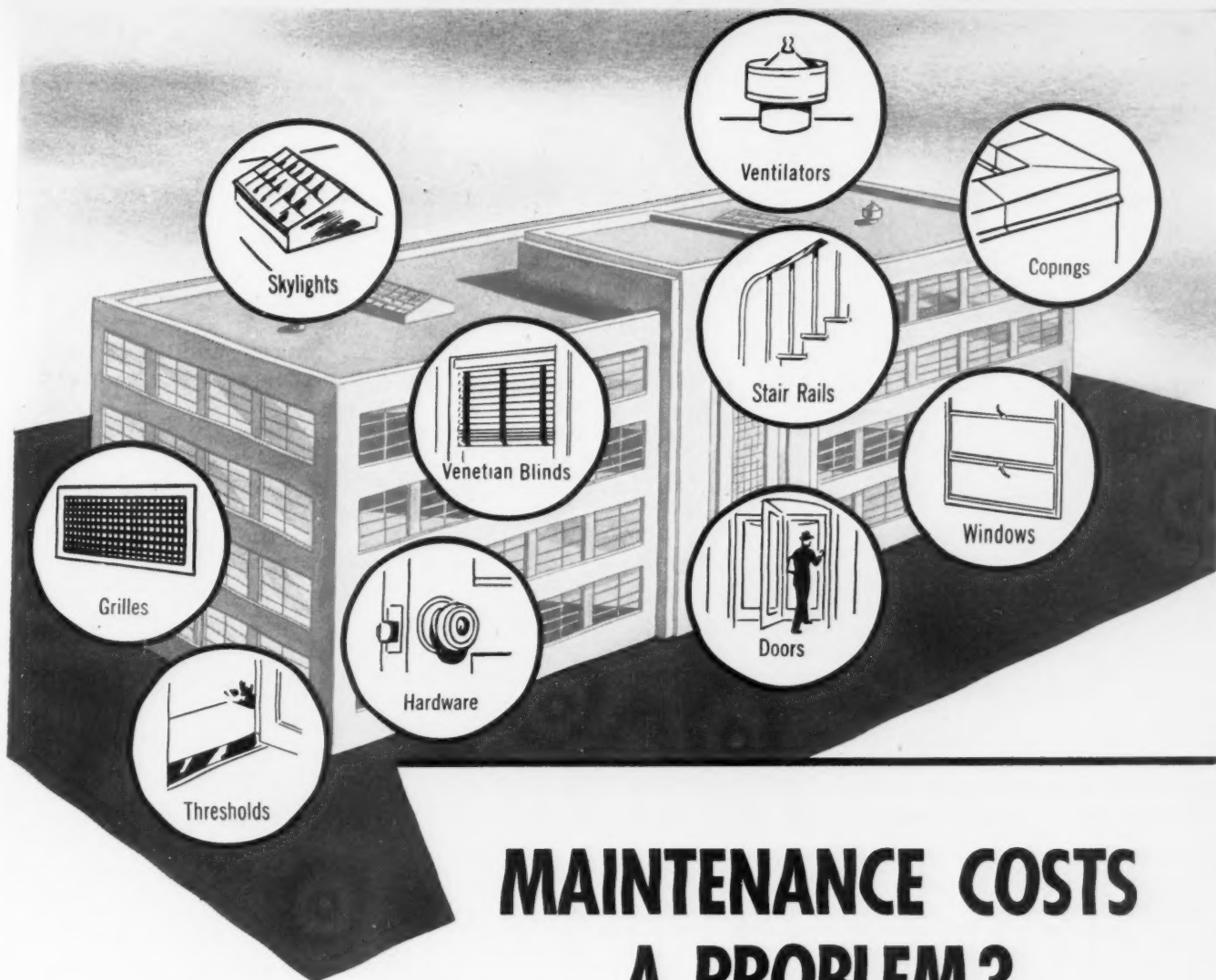
The students, for their part, were not able to brush aside their parents' remarks or views as they might have done at home by saying, "You don't understand," and letting it go at that.



THERE'S nothing small about the things the art students do in Maxine Reum's classes at Hinsdale Township High School, Hinsdale, Ill. Not satisfied with a display board of ordinary size, they use the entire end wall of the combination study hall and lunchroom in the school for their artistic purposes. This gives them a 32 by 8 foot space. It is covered with wall-board painted a dove gray.

On it they work out displays, about 20 of them a year. Some are announcements of school activities, others have a seasonal message suitable to Christmas, Easter, Thanksgiving. Each display is preceded by careful planning in miniature. A sketch or rough draft is made by each student; these are judged by the class for originality, balance, color harmony and adaptability to space. Sometimes ideas are combined.

The actual work of getting a design onto the wall is a cooperative venture, most of it being done during the activity period or after school hours.



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QUESTIONS AND ANSWERS

Activities Open to All?

Should a school adopt academic standards for participation in extra-curricular activities?—V.E.C., Ill.

If the word "curriculum" is meant to include all the experiences afforded by the school, then students who fail, despite their best efforts, to meet academic standards are deprived of the full educational program which is their right. Certainly, no one would think of depriving a student who failed in mathematics and social studies from taking English. Only by offering all students as many experiences as possible can the individual student and the school discover his interests, aptitudes, special abilities and weaknesses. An intelligent choice of his life's work by the student or a wholesome use of leisure time may be the result of his having participated in as wide a program as possible. As a matter of fact, the extracurricular activity, of which the student is deprived, may have been the best educational experience he could get in school.—HOMER W. ANDERSON.

Up-to-Date Marking System

We would like information about an up-to-date system of marking pupil ability.—S.G., Pa.

There are many different marking systems in use. Each includes characteristics that are commendable and some that are questionable and each is felt to be the most up-to-date by those who use it.

The most up-to-date system should include provisions for: (1) teacher appraisal, group appraisal, self appraisal; (2) growth appraisal (comparing the individual with himself); (3) indicating areas of greater necessary effort; (4) much more description than a mere mark.

Standardized psychological examinations should be administered. Achievement tests should be of both standardized and teacher constructed types. The report card should be constructed so that the child, in cooperation with the teacher and the group, can construct

his profile from period to period, based on both standardized and nonstandardized test scores. This system would enable the child to compete against his own record rather than with the records of others who may be more intelligent than he. It would also serve as an incentive to the child for improving his work.—W. RAY SMITTLE.

Too Much Running in Corridors

How can a school eliminate running in the corridors between classes?—V.E.C., Ill.

Running in the corridors between classes is a symptom which may have one or more causes.

Is it due to the restlessness characteristic of certain age levels, especially after too long periods of physical inactivity? Does the educational program require students to sit at fixed stations for periods that are too long for their level of maturity? Do these outbursts follow periods when group control has been imposed rigidly by the teacher? Have boys and girls been allowed freedom in proportion to their ability to use it wisely throughout the various stages of their school experiences? Do they feel a responsibility for their own control? Are there student organizations through which the forces of good can be marshaled?

Faculty and students should discuss the problem frankly to determine the causes of the undesirable corridor conduct. They should agree jointly on the corrective measures to be put into practice and accept an equal share of responsibility for improving conditions.—HOMER W. ANDERSON.

For Good Public Relations

What are your suggestions for a superior public relations program?—C.D.L., Tex.

There is no ready-made public relations program for a school system. It has to be tailored to fit the needs of the community. There are some general principles, however, to guide the tailor.

A program of public relations is no different from other items of school ad-

ministration. A board of education should adopt a policy regarding the school's relationship with the public, and the school administrator should be responsible for working out the program. Like other problems of school administration, the best results will be obtained by participation in the planning by those concerned, namely, principals, supervisors, teachers, possibly noncertificated employees. An advisory committee of citizens having knowledge of public relations problems and technics could be most helpful.

Public relations includes publicity and much more. A sense of staff responsibility for service to the young people and adults of the community is the cornerstone of the program. Schools exist to serve the community, not for the benefit of the staff. Staff morale and pride in the school system are essential. The program should seek to discover the public's attitude toward the schools as well as furnish information to the public.

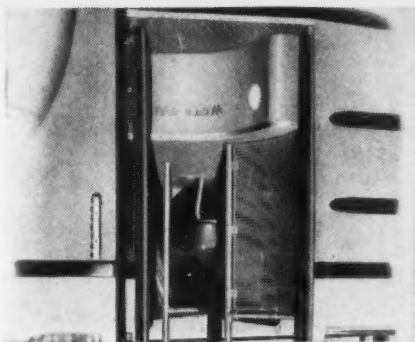
Finally, technics of public information will need to be employed. For these, authority and responsibility need to be fixed.—B. I. GRIFFITH.

Professional Advertising

Would a "Help Wanted" and a "Situation Wanted" section in teachers' magazines be of practical value?—W.S.S., Minn.

There is little else but a positive answer to be given this question. The professions of medicine, law, engineering, and undoubtedly many others, invariably carry classified columns in their journals in which their members may advertise their services. Almost without exception, education journals have not offered their readers such professional help. It is difficult to conceive supporting reasons for this action.

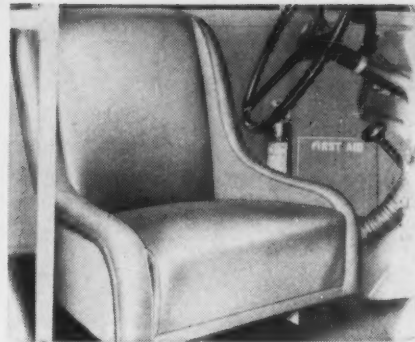
Undoubtedly, a "Classified," "Help Wanted" or "Situation Wanted" column would not make commercial agencies happy. But, on the contrary, it might be the means of saving a teacher or a superintendent several hundred dollars in fees. The argument
(Continued on Page 10.)



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A. V. OVERN.....*University of North Dakota*
PAUL C. PACKER.....*Higher Education, Oregon*
EDWIN H. REEDER.....*University of Illinois*
PAUL A. REHMUS.....*Portland Public Schools*
W. C. REUSSER.....*University of Wyoming*
G. E. ROUDEBUSH.....*Columbus Public Schools*
GEORGE I. SANCHEZ.....*University of Texas*
F. R. SCHERER.....*Rochester Public Schools*
R. E. SCOTT.....*Hennepin County Schools*
H. W. SCHMIDT.....*Wisconsin State Dept.*
E. R. SIFERT.....*Maywood Public Schools*
W. B. SPALDING.....*University of Illinois*
VIRGIL STINEBAUGH.....*Indianapolis Public Schools*
J. W. STUDEBAKER.....*Commissioner of Education*
V. T. THAYER.....*Ethical Culture Schools*
W. W. THEISEN.....*Milwaukee Public Schools*
CHARLES H. THOMPSON.....*Howard University*
EDMUND H. THORNE.....*West Hartford Schools*
VINAL H. TIBBETTS.....*Am. Ed. Fellowship*
C. C. TRILLINGHAM.....*Los Angeles County Schools*
JULIUS E. WARREN.....*University City Public Schools*
W. T. WHITE.....*Dallas Public Schools*

has been advanced by some that poorly qualified and perhaps unsuccessful teachers might use such columns in an attempt to seek employment.

On the contrary, it is doubtful whether a teacher who has not been successful in her calling would care to expose her biography to the profession in this manner. Rather, she might be more inclined to file her record with an employment agency. "Help Wanted" and "Situation Wanted" columns could conceivably create local unrest, although it is doubtful that this would be true to any large extent.

Looking at the matter from another point of view, it is possible that such advertising service might give a modern twist to the old phrase, "robbing Peter to pay Paul." Nevertheless, it might possibly stimulate boards of education to be more alert to such important matters as salary and working conditions.

Professional people nowadays are looking for practical help. It would seem that W.S.S. of Minnesota has raised a question which might well be explored by our professional journals with a view to offering the additional service suggested to their readers.—OTIS A. CROSBY.

Some administrators hold an entirely different point of view on this question. They believe that "Situation Wanted" advertisements would merely create confusion and misunderstanding. They do not deny that teachers, especially those in small school districts, are at a disadvantage in bringing their qualifications to the attention of other school administrators. In some instances, their only recourse is to pay the commissions collected by private employment agencies.

As a possible solution to the problem, they ask for adequate teacher placement service by state departments of education and state teachers' associations. As stated by the placement bureau of one association, the purpose of such service should be to place the teacher to the best interests of himself and of the community. There also is room for improvement in teacher placement by teacher training institutions.

From a public relations point of view, it is argued that an avalanche of this type of advertising would create an entirely erroneous notion of the actual supply of and demand for teachers.—A. H. R.

The Lima Public Schools
LIMA, OHIO

GORDON G. HUMBERT
SUPERINTENDENT OF SCHOOLS

September 8, 1947

THIS CONCERNS YOU!

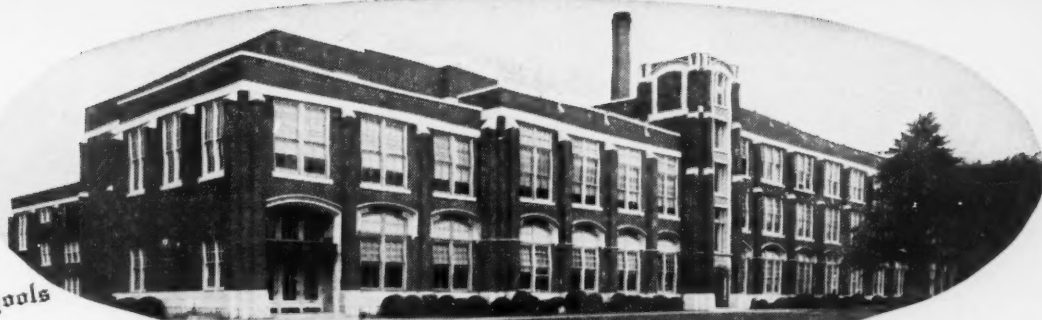
To Whom it may concern:

For the past year we have been using Whiz products, manufactured by the R. M. Hollingshead Corporation, Camden, New Jersey; products such as Whiz-Off, Whiz Mirror and Glass Finish, Whiz Super Wax, and Whiz Phenolic Disinfectant.

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Harry A. Gross
Harry A. Gross
Director of Business Affairs



Read this letter carefully! It's really a personal letter from Mr. Gross to every purchasing agent—every maintenance man and woman. And by telling the experience of The Lima Public Schools with Whiz products, Mr. Gross backs up the story we hear from Whiz users all over the country. They report that Whiz products help them keep within the budget by doing a better job with less work . . . by cutting man-hours and maintenance costs. And the *complete* Whiz line, they tell us, brings even greater savings by eliminating the expense, trouble, and time involved in making scattered purchases.

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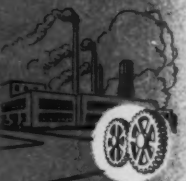
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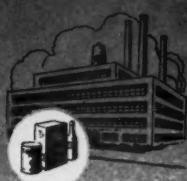
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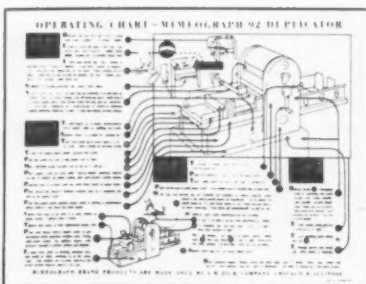
COMMERCIAL TEACHERS want these modern visual teaching ma-

terials. They help students to greater independence in the study of stencil duplication. They help make every minute productive in student learning. The minimum of supervision needed gives you more time for individual instruction.

STAFFS OF SCHOOL PAPERS—editor, art director, instructor, faculty sponsor—will find here the help you need for professional-looking papers and annuals. Illustrations of all kinds. Complete "how to do it" details. Instructions presented to lighten the burden for teachers. Students benefit from self teaching in doing the work.

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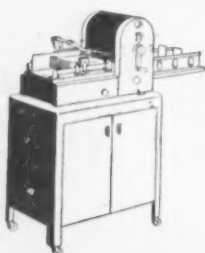


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The NATION'S SCHOOLS

Looking Forward

Horace Mann League Fights Diversion

THE Horace Mann League, an association of teachers and administrators loosely connected with the National Education Association, has sensed the grave danger to public education in proposed diversions of public funds to sectarian schools. True to the ideals of the great public school leader whose name it perpetuates, this organization is assuming aggressive leadership for maintaining undivided school support for the nonpartisan, impartial, nonsectarian, classless public schools of the United States. To this end it is promulgating a new platform which reads:

"Since the Horace Mann League exists to perpetuate the ideals of Horace Mann, the founder of the American public school system, its basic purposes and activities are to strengthen our public schools. The league believes that the public school system of the United States is an indispensable agency for the perpetuation of the ideals of our democracy and a most necessary unifying influence in American life. According to the league's beliefs, our public schools should be free, classless, nonsectarian and open to all of the children of all of the people. The schools should be dominated by such purposes as will ensure the preparation of children and youth for effective citizenship in our democracy.

"The league believes that the American tradition of separation of Church and State must be preserved inviolate and should be most vigorously and zealously safeguarded. The league grants the right of special interest groups, including various religious sects, to maintain their own schools so long as such schools meet the standards defined by the states in which they are located. The league believes that these separate or nonpublic schools should be financed entirely by their supporters and is, therefore, strongly opposed to proposals to devote public funds either to the direct or to the indirect support of such schools.

"The league favors the generous financial support of the public schools by local, state and federal funds. It believes, however, that federal grants should be so made that there will be no federal control or interference in the adminis-

tration, curriculum, personnel and instructional procedures of local school systems.

"The league seeks the active support of those educators and laymen who are committed to the ideals of Horace Mann and who believe in the aims and policies set forth in this platform."

All schoolmen who believe in the American way in public education are invited to apply for membership in the Horace Mann League through Dr. Joy Elmer Morgan, 1201 Sixteenth Street, N.W., Washington, D. C.

Russian Educational Objectives

THE education function is an essential and integral part of a total culture and operates in harmony with the developing cultural patterns. The great truth of this principle has again been verified in the latest publication on the principles and methods of Russian education, "I Want to Be Like Stalin," (John Day Co., New York, 1947). The translation is by George S. Counts and Nucia P. Lodge who also assisted in the preparation of "New Russia's Primer" which the Houghton Mifflin Company published in 1931.

"I Want to Be Like Stalin" presents certain extracts from the third edition of the official textbook used in the preparation of teachers for Soviet schools. Its Russian authors are B. P. Yesipov and N. D. Goncharov.

Since the Russian cultural pattern is admittedly Communistic, it might normally be expected that the process of teacher education would devote considerable time to specific indoctrination of future teachers in the ideals, practices and technics of Russian Communism.

"I Want to Be Like Stalin" is more of a dramatic than a technically correct descriptive title. The Russians simply called it "Pedagogy." The book itself is an intensely interesting witness to changes that have gradually occurred within the Soviet Union since 1917. The Soviet heroes, Lenin and Stalin, now appear as "the greatest people of our time" whose every action "expresses a passionate love of and an ardent devotion to the people" (page 43) just

as the heroes in other cultures are given proper emotional and symbolic build-ups.

Soviet educational method believes in self discipline, although "while giving foremost place to methods of persuasion, Soviet pedagogy does not repudiate methods of coercion. . . ." (page 45). "It is important to us that our pupils desire and strive to become disciplined, not because of external pressure but because of their own voluntary promptings. It is important that their own active disciplinary powers function and that they have an inner harmony with discipline and a desire to achieve it. Such discipline leads inevitably to self discipline. Under such discipline conformity and obedience become more perfect. . . ." (page 96).

While accepting the ideal of the inner or self discipline, the school is impatient of immaturity as indicated "when pupils are unable, by reason of immaturity, to understand a given moral requirement. But one must not wait until they grow up and understand: the conditions of social life make the observation of a given requirement necessary and obligatory. Under such circumstances the rule may simply be given categorically and obedience ordered without specific explanations and proofs. . . ." (page 46).

Soviet education seeks to condition Russian children for life in an authoritarian culture. It includes extensive provision for the development of the elements of Bolshevik character, for intense and unquestioning patriotism through love of motherland and fatherland, for Soviet humanism, for the common good, for order and discipline, for courage and strength, for the will to fight against Soviet enemies and in the worship of its heroes—Lenin and Stalin.

This abbreviated volume indicates a need for translation of the entire book into English so that American public school teachers may better understand the fundamental differences between authoritarian and democratic education. The book is nothing about which to get disturbed but rather something to learn and understand. It is merely Russian education operating in harmony with the modern interpretation of ancient Russian national and imperial cultural patterns.

Let's Support Democracy

MANY Americans are increasingly disturbed to find that the cold war between American democracy and Russian Communism, instead of aligning liberal democratic trends in Europe and the United States, appears to be operating in reverse. From the so-called "alliance of expediency" between the Americans and Fascist-Vichy to the present, whether by consistent design or gradual drift, the United States appears to be drawing closer to governments of the extreme right instead of stimulating the growth of truly democratic movements.

The recent change in policy toward Fascism in the Argentine, careful feelers concerning the possibilities of loans to the Spanish and Portuguese dictatorships, certain policies in occupied Germany and Japan, in Indonesia and China strengthen these beliefs. Apparently the keynote of our foreign policy is becoming more anti-Russian

rather than actually more pro-democratic. In the words of the late George C. Acheson, "American and Japanese aims are identical."

The people of Asia, Indonesia, the near East, Europe and even the Americas would have more confidence in and respect for our North American program if it sought seriously to protect and stimulate the growth of truly democratic trends instead of supporting tottering reactionary and even admittedly Fascist regimes.

Intercultural Instruction

UNLIKE most national states of the old world which display unusual racial and cultural solidarity, the United States has been since its beginning a haven for the oppressed and underprivileged of all races who felt the urge and had the nerve to try again in the shining new world of unlimited opportunity. *E pluribus unum* is more than a slogan; it describes an actual condition.

The need for harmonizing cultural diversities within the nucleus of American democracy has long been a serious educational problem. The American public school early recognized and accepted its great responsibilities as a common meeting place for the harmonization of those cultural differences which otherwise create social conflict and group cleavage.

At first the problem was relatively simple but since World War I and the rise of totalitarian governments it has become much more difficult. Fascism thrives on emotionalized concepts of racial superiority and the hate of cultural minorities. As a result, the rôle of the American public school as a harmonizer of cultural conflict has become increasingly important.

The "Springfield Plan," initiated in 1939 by Supt. John Granrud in a Massachusetts community long noted for its educational progressiveness, was among the first comprehensive teaching programs to combat racial prejudices and tensions. As stated by Dr. Clyde R. Miller, associate professor of education at Teachers College, Columbia University, in the introduction to "The Story of the Springfield Plan" (Barnes and Noble, New York, 1945): "The Springfield program is an attempt to eliminate the four delusions by putting into practice the ideals of the Constitution of the United States . . . by replacing the delusions with loyalty to four kinds of democracy:

"RELIGIOUS DEMOCRACY, or the right to hold any theological belief that does no injury to other people. This involves the obligation to be decent in human relationships, to play fair.

"POLITICAL DEMOCRACY, or the right to vote. This implies the right to know the issues on which we vote, the right to talk about them, publish them and bring them into the schools for discussion.

"ECONOMIC DEMOCRACY, or the right to work. This means, too, the right of employes or of employers to organize and their obligation to cooperate for the welfare of the community.

"SOCIAL DEMOCRACY, or the right to be free from discrimination based on some theory of inferiority or superior-

ity. This suggests the obligations of good citizens to prevent such discrimination."

More recently the John Dewey Society has presented, through Harper & Bros., 1947, its ninth yearbook on "Intercultural Attitudes in the Making." After a brief development of the underlying philosophy by William H. Kilpatrick, the rest of the book is divided into three sections, each presenting practical situations and solutions for working with young children, adolescents and youths. The writing is unusually fresh and stimulating.

A third recently published aid is titled "From Sea to Shining Sea," an administrators' handbook for intergroup education prepared by a committee of the American Association of School Administrators under the chairmanship of James H. Lake. This brief monograph contains valuable suggestions on how to organize for intercultural education and how to use already available materials effectively.

These publications indicate that the public schools not only are aware of their responsibility for the harmonization of potential and active cultural conflict but are actually beginning to do something about it.

Elementary Education Neglected

AN ADMINISTRATOR recently wrote that: "We have [high school] seniors who read on the level of second graders. We have introduced a remedial reading program and the result is startling. . . ."

Were it not for the fact that the correspondent was totally unconscious of any weakness in this district's instructional policy, the immediate answer might be: Why not try teaching reading to boys and girls at elementary school level?

Remedial reading clinics at upper secondary, college and university levels are now necessary because elementary education has been and is still suffering from curious organizational neglect. These weaknesses exist not only in small marginal school districts but in many of the large urban centers as well. They will continue to grow until administrators are willing to go to the heart of the problem, reorganize elementary instruction and then give it as much attention as the more immediately dramatic secondary program receives.

Elementary education has been the educational step-child for many years, receiving less attention and less of the educational budget than its importance demands. Until a few years ago the poorest teachers in terms of general and professional education have been accepted for teaching the pre-adolescents. The poorest and most obsolete school buildings have been considered adequate for elementary instruction in contrast with much more showy structures for the secondary years.

Elementary class sizes are much larger than even the superior, let alone the average, teacher can manage and still give proper attention to individual differences. Even state subventions for elementary and secondary education show a large differential between the per capita amounts appropriated to elementary and secondary education. There is no rhyme or reason for these differentials except that

the dead hand of academic tradition was written into early state fiscal legislation by educators who substituted "status quo" or modal practice for a functional approach to the problem.

Statistically minded educators in the 20's discovered that there was considerable failure in the grades. These studies, following the managerial and "efficiency" trends then riding high, were quickly translated into money and made the headlines in demonstrating how the people were losing money by "repeats." Size of class studies indicated that numbers constituted only one of at least nine contributing factors in the instructional complex. Progressive educators demonstrated that the rigid graded system was an educational and social anachronism and that in democratic education the physical, social, emotional and ethical aspects of personality were just as important as the purely mental. All of these findings possessed a certain if limited validity.

They were quickly seized upon and used in elementary administration beyond the rational limits of their validity. They came out in composite practice as: children must not be failed because it is expensive; size of class is only a minor factor in instructional efficiency; elementary teaching is a simple process, and secondary education has more budget appeal. Administrative emphasis was placed on speed, organization and economy, although teaching is not an assembly-line process. Ten years later colleges found it necessary to introduce reading clinics and employers complained about the competency of secondary school graduates.

Functional analysis of elementary education indicates that it is the most important and most crucial phase of the total process; that elementary teachers need just as much general and professional education as secondary teachers; that the demands of the elementary curriculum are just as wide as those of the secondary; that elementary buildings must provide the same extended and specialized facilities as the secondary; that the probable optimum size of class is not more than 25 in membership, and that if elementary educational needs are properly served there will be no difference between elementary and secondary per capita expenses.

Until these conditions prevail, more secondary schools, more colleges and universities will introduce reading clinics and probably be amazed at the results. A return to the original question is indicated: Why not teach reading in the elementary years?

"Child-Centered"

HERE'S one copied exactly from the official rules of a Michigan board of education:

"In order of importance in organization we suggest the following: A. Community; B. Board of Education; C. Superintendent; D. Principal; E. Teachers; F. Pupils. It is well to remember at all times that the schools are for the children."

The Editor

Streamlining

CHICAGO'S SCHOOL SYSTEM

WHEN Edward J. Kelly, then mayor of Chicago, decided to accept the recommendation of his advisory committee of college presidents and reorganize his school board, few citizens thought there would be more than a temporary change. A long and bitter battle had preceded this decision, with civic organizations, teacher groups and several newspapers lined up on one side, and political organizations, labor groups and many business leaders backing the mayor and school board. Finally, educational leaders on a regional and national level entered the picture, conducted investigations and made categorical demands for a change.

The N.E.A. Commission for the Defense of Democracy through Education reported:

Many injurious personnel practices, complained of by teachers, parents and civic bodies, exist and to a considerable extent have lowered the morale and effectiveness of the school system. If allowed to continue, these practices will cause a progressive degeneration of the Chicago schools which will mark and handicap them for many years.

The North Central Association of Secondary Schools and Colleges warned:

The future status of membership and accreditation of the Chicago public schools by the North Central Association of Colleges and Secondary Schools will be dependent upon the taking of appropriate action by the electorate of the city of Chicago through their elected representatives, namely, their mayor, their city council and their legislators, to meet the following recommendations: (1) the administrative responsibility to be centered in the office of the superintendent of schools, (2) a politically independent board of education be provided for. (March 30, 1946.)

It was immediately following this warning that Mayor Kelly appointed an advisory committee, consisting of

CATHARINE CULVER MULBERRY

Member, Chicago Board of Education*

the heads of the five largest colleges and universities in the Chicago area and the president of the North Central Association, and said that he would be bound by their recommendations. After a study of reports and facts, the committee stated:

The committee believes that Dr. Johnson does not possess all the qualifications necessary for the highest performance in the office of superintendent of schools for the city of Chicago, as outlined in this report. Accordingly, the committee recommends to the mayor that he take steps to secure the resignation of the present superintendent.

It also recommended the establishment of a nominating commission to give the mayor a list of nominees for the board of education, selected on a strictly nonpartisan, nonpolitical basis for their integrity and their record of citywide community service. About the existing board the report said:

The committee believes that nothing could more certainly demonstrate the interest of the members of the present board of education in the welfare of the schools than to have them voluntarily agree to abide by the decision of the newly created commission, thus making it possible to start with a clean slate.

Within twenty-four hours of the publication of this report the superintendent of schools, William H. Johnson, had resigned, and conversations between the mayor and members of the board of education were under way looking toward the creation of vacancies to be filled by the new method. Because of their long friendship and strong political ties, the mayor refused to ask for the resignation of the president of the board, James B. McCahey, and left him in office to carry out the first steps of the

reorganization. The mayoral election was approaching and there were strong pressures to rid the political organization of the embarrassment of the school problem, while on the other hand there were political debts of long standing to be considered. Public feeling ran high for a change in the entire city administration as well as in the board of education.

Finally, enough board of education members resigned or their terms expired to give the nominating commission a chance to make recommendations for six of the eleven members of the board.

At about the same time, the mayor stepped aside for another candidate in the Democratic primary, and Martin H. Kennelly was nominated and later elected mayor of Chicago with a plurality so large that it left no doubt that the people of the city were ready for a change. Both parties had recognized the importance of the school issue, and both candidates for mayor were publicly pledged to appoint nonpolitical men and women to the board of education, to refrain from interfering afterward and to support legislation reorganizing the system to set up one administrative head.

Almost immediately upon assuming office, Mayor Kennelly requested the nominating commission to send him a list of recommended names for appointment to the board. It sent a list of twelve names from which he chose six, who were immediately sworn in. President McCahey had resigned and stepped out of office shortly after Mayor Kelly left the city hall. Charles J. Whipple, chairman of the board of Hibbard, Spencer, Bartlett and Company, was elected president.

*The author is writing from her experience as a member of the board, but not officially for the board.

Other vacancies occurred later, so that to date the appointment of *eight* of the eleven board members has been screened through the nominating commission.

Many of the ills of the Chicago public schools can be attributed to the multiple-headed administrative system which made it necessary for the board or its president to act administratively in resolving tangled lines of authority and overlapping problems. As far back as 1932, a survey committee under the direction of George D. Strayer of Columbia University condemned the dual authority given the business manager and superintendent and recommended that the law be changed. Again in 1943, a report published by the Chicago Association of Commerce and the Civic Federation recommended that a single chief executive officer be provided.

The Chicago division of the Illinois Education Association and the Chicago Teachers Union, with other teacher groups and civic organizations, worked for years on the preparation of a bill which would require one administrative head for the school system. With the support of the newly organized board of education, such a bill was introduced into the state legislature in February 1947. It had the active support of all of the leading civic and business organizations, including the American Legion, the Chicago Association of Commerce and Industry, the Chicago Woman's Club, the Citizens Schools Committee, the City Club of Chicago, the Civic Federation, the Illinois Congress of Parents and Teachers, the Illinois Federation of Women's Clubs, the Illinois League of Women Voters, the Woman's City Club. These, together with education organizations, such as the Association of Chicago Teachers, the Chicago Principals Club, the Chicago Teachers Union (affiliated with the American Federation of Labor), the High School Assistant Principals Committee, the Illinois Association of School Boards, the Illinois Education Association, the Illinois State Federation of Teachers and the Men Teachers Club of Chicago, worked untiringly for the bill. In addition, the governor of the state, the candidates of both political parties

in the mayoralty, the outgoing mayor and all of the newspapers of the city of Chicago were publicly committed to the bill and actively supported it. News and editorial support by the *Daily News*, the *Sun* and the *Tribune* wielded a strong influence, and leaders in the organizations supporting the measures made many journeys to Springfield to speak at hearings and contact legislators.

In spite of the widespread support of the bill, powerful opposition developed, largely on the ground that the measure would place the employees of the business department in a position subservient to the educational employees. Many employees of the business department admitted frankly that they had fared well under the old system and did not want a change. They preferred to have more direct access to the president of the board of education, who was appointed by the mayor, than to go through an administrative officer who had tenure and was not politically appointed.

OPPOSED BY ENGINEERS' UNION

At hearings before committees of the legislature it was claimed that no man could be found who was big enough or who had sufficient knowledge and ability to wield as much power as the new position would carry. Representatives of the engineers' union stated that the proposed system would endanger the safety of the children in the schools because it would permit an educator to be responsible for the physical operation of the school plant.

However, proponents pointed out that other laws specify where and how licensed engineers must be employed, that they are governed by civil service regulations and that the superintendent's bill as proposed neither could nor did make any changes in this respect. Examples were given of explosions which had occurred in other school systems where the superintendent was the chief executive officer but no one proved that such accidents could be traced to the system of administration rather than to individuals or special circumstances.

Another strong factor in the opposition was the fear that school princi-

pals would interfere with the work of janitors and heating engineers. It was pointed out to these objectors that the responsibilities of the employees of the school system were a matter of board rules and administration, and were not involved in the proposed legislation. The politically powerful janitors' and engineers' unions were the most active and effective opponents of the measure, and were backed in full by the state Federation of Labor and the C.I.O.

MAYOR PREVENTS WALKOUT

When the bill came up for a vote in the house, it failed to pass by eleven votes, after a stormy session where charges of bribery and undue influence were hurled. Legislative leaders advised the sponsors to go back home and get stronger support from Chicago Democrats and the mayor before bringing the bill to a vote in the senate. Mayor Kennelly accordingly called together the opponents and proponents for a conference in his office. Several times during that conference feeling ran so high that members of both sides threatened to walk out, but the mayor held the group together and patiently insisted that he had made a pledge to the people of Chicago which must be kept.

When the principles of the bill were finally accepted (the opponents making clear that they were acceding only in deference to the mayor), discussions were continued until agreement had been reached. There was much feeling against the title "superintendent" because heretofore in Chicago it had had no connection with any business or plant functions.

By putting the word "general" before superintendent, thereby incorporating something of the idea of a plant superintendent, the operating people were satisfied that their functions were not overlooked and the title "general superintendent of schools" was agreed upon.

In the bill as originally drawn, the law department was placed under the superintendent, whereas previously it had been one of three separate and independent departments reporting directly to the board. In a school system as large as Chicago's, where the 1947

Determined lay groups and teachers organizations win victories over partisan politics and vested interests, but there are more battles ahead. Superintendent given control of business management.

budget totaled \$86,000,000 and 22,000 employees are involved, there is a constant succession of law suits against the board. Disgruntled or displaced employes, disappointed applicants and protesting taxpayers are continually filing suits against the board, and where so many millions are involved, the cases frequently go to the state supreme court.

Members of the board are legally liable and subject to a penalty of \$10,000 for unlawful diversion of funds, and it is important that they have adequate legal protection. It was proposed by the union leaders that the bill be amended to omit the law department from the jurisdiction of the superintendent, and there was little objection from any of the groups supporting the bill.

The revised version gives the law department "charge and control, subject to the approval of the board, of the law department and of all litigation, legal questions and such other legal matters as may be referred to the department by the board or by the general superintendent of schools," thus providing both the board and the superintendent with legal services.

One other change in the bill was a completely new thought. The old law provided that changes could be made in the education staff, and that school buildings could be planned and located only upon recommendation of the superintendent or by a two-thirds vote of the board. In order to obtain support for increasing the superintendent's powers to include the business department, it finally was agreed to change this requirement to a simple majority vote. What effect this will have remains to be seen.

LAW ADOPTED UNANIMOUSLY

It took about three days of intensive consultation before agreement was reached on a final version. Governor Green and his legislative leaders, who had supported the measure from the beginning, gave the "go" signal to the revised agreed bill and it passed the senate unanimously.

The house then jumped on the band wagon, approving it by a vote of 135 to 0, May 26. On June 4 the governor signed it before representatives of business, education, labor and civic groups who, in genial mood, shook hands and had their pictures taken, agreeing that a great step forward in Chicago public school history had just been taken.

IT EARLY became apparent that it would be best to bring in someone from outside to be the "general superintendent." The system had been torn by bitter factionalism for the past several years. All leaders had been identified with one faction or the other. It was felt that someone new coming into the system could bring peace between the warring factions and obtain their cooperation better than someone who had been identified with either faction. If, in addition, that person had national stature and much personal prestige, public confidence in the schools would be more easily restored and the level of education lifted.

A second reason for selecting an outsider was that since the system always had operated with complete separation of the business and education departments, there was no one in it who had had experience in administering a school system under one head. Such experience was really important in working out the reorganization under the new law.

Accordingly, the board arranged interviews with the twelve who in its opinion had the highest qualifications, spending at least one half day with each and asking many questions about his experience and educational philosophy. These interviews were helpful in showing how other cities administered their schools and handled their many similar problems.

With really surprising unanimity, in view of the high qualifications of all who were considered, the board chose Herold C. Hunt, superintendent of schools of Kansas City, Mo. Except for the fact that there were some who as a matter of principle wanted to see the position go to a local person, Dr. Hunt received the unanimous and enthusiastic approbation of the board.

When the board found the man who measured up to the big job it wanted done, it proceeded to set up a salary which would be an appropriate measure of the importance attached to the position. Larger than the mayor's salary, larger than that paid by any other city except New York, \$25,000 per year was the amount offered and accepted by Dr. Hunt for a four year term.

One of Dr. Hunt's earliest official acts was to request authority to employ a group of specialists to survey all of the positions and the work being done under the board of education, and to reorganize and reallo-

cate them under the new law. Faced also with serious financial problems and the pressing need for making salary adjustments, the board requested that the survey include a report on salaries now paid the education personnel in ten other large cities of the nation. Study also was to be made of purchasing practices, with recommendations for their improvement.

ACTION BASED ON SURVEY

At a cost of \$12,000, Griffenhagen and Associates, nationally known consultants in public administration and finance, was employed to carry out the study. The superintendent was especially anxious that the survey and reorganization recommendations be made by an outside group which could be completely objective and impersonal. It would then be his task to put its recommendations into effect and adapt them with regard to personnel, timeliness and practicability.

The Griffenhagen report with regard to reorganization and salaries was presented to the board November 12, 1947. Two weeks later the superintendent presented a recommendation for the reorganization of the system based on the survey, and on December 10, 1947, this plan, with a few modifications, was adopted unanimously by the board, to go into effect with the adoption of the budget sometime in January 1948.

The reorganization plan provides for the integration and elimination of the former separate business and education departments. The modified plan sets up a so-called "cabinet" of ten persons, besides the superintendent, to consist of a first assistant superintendent, four assistant superintendents in charge, respectively, of elementary education, secondary education, vocational education and special education (reporting with and through the first assistant) a controller or auditor, an assistant superintendent in charge of personnel, a director of purchases, a director of a department of plant operation and lunchrooms and an architect. It discontinues the position of business manager, centralizes all personnel functions in one main department directly under the general superintendent and reallocates the work of the various bureaus and offices according to the accompanying chart.

Setting forth the principle that there should be logical allocation of functions, the Griffenhagen study showed that "related functions are now

dispersed among different organization units and, on the other hand, unrelated functions are placed together."

For example, typewriter repairs are handled by men in the bureau of purchases, administration of evening schools is separate from adult education, and compilation of statistics is in the division of elementary schools.

The report then warns against wide spans of control. It states:

No person can effectively direct a large number of administrative heads of diverse interests, or keep contact with several hundred persons, even on the same work. At present, the general superintendent of schools has 20 bureau, division and office heads reporting to him. The assistant superintendent in charge of personnel has reporting to him many evening school principals, a large number of bath attendants and matrons and several administrative heads. The number of people reporting to the purchasing agent is no fewer than 16. The number of people reporting to the chief engineer is very large.

The survey revealed that "in many cases in the school system, organization units seem to have been designated as bureaus, divisions, sections

or offices on the basis of what is being paid to the head of the unit."

Another illogical practice was characterized as "the influence of personnel on organization. . . .

For example, the R.O.T.C. bureau was placed in the division of special schools because the assistant superintendent in charge of that division was an army officer and was interested in military training. It later was placed in the bureau of compulsory education when the same man was transferred to a position as head of that bureau. Also, the bureau of educational expenditures was placed in the division of vocational education because a person then in that division was selected to head it. Again, several organization units, such as the statistics section, were transferred to the division of elementary schools when the head of the bureau of textbooks and building surveys was made assistant superintendent in charge of elementary schools.

No organization can long remain logical or functional in form if the personal preferences and dislikes of individuals at a given time are permitted to change it. The heads of organization units retire and, when they do, new heads cannot possibly be found

with the exact combination of abilities and preferences required to head such unusual combinations as have been brought into existence.

The investigators declared:

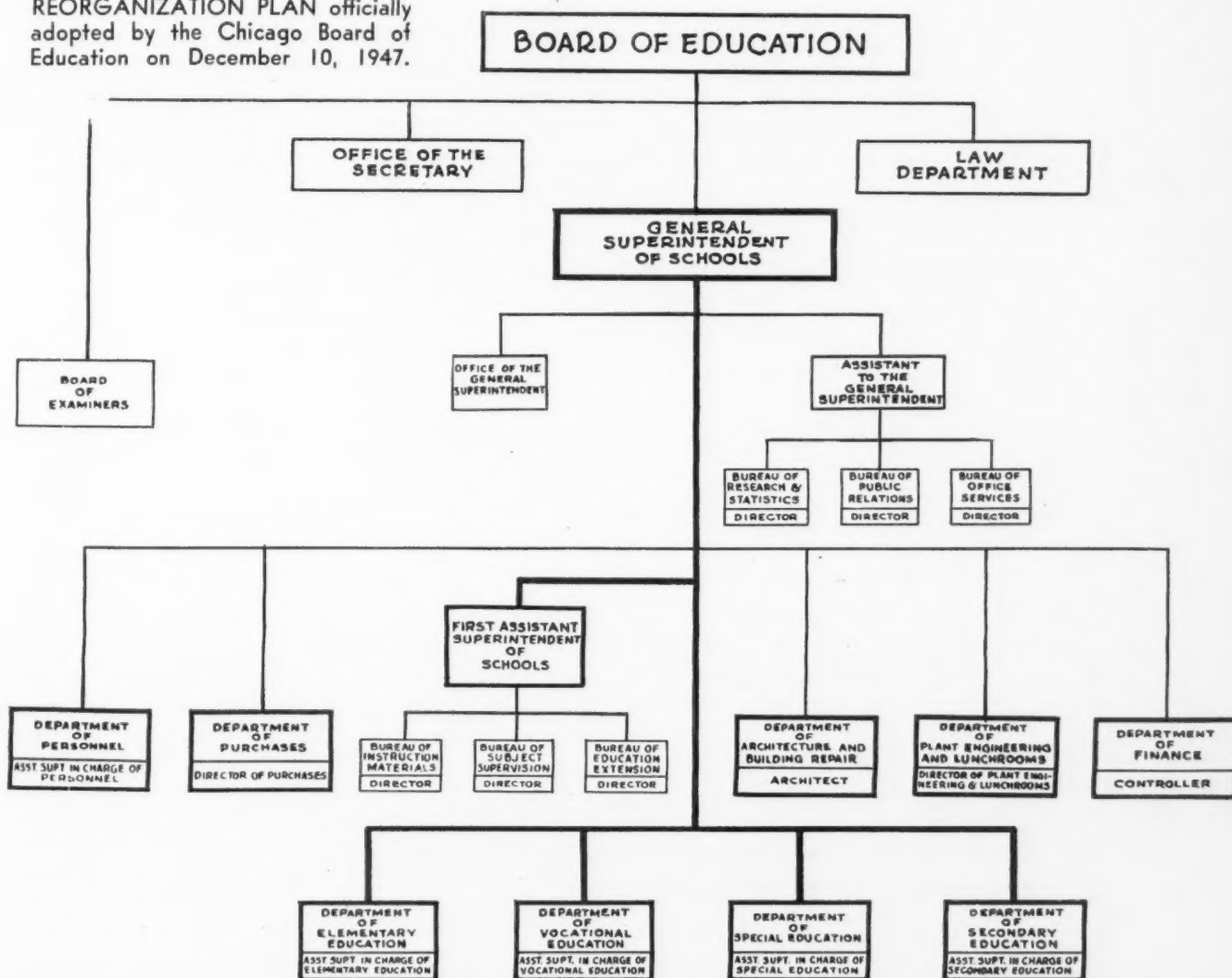
The service is replete with so-called "temporary employees," some of whose qualifications are in doubt and whose appointments have in many cases, in all likelihood, been made on the basis of considerations other than those of merit. Many of the temporary employees who are qualified would undoubtedly like to qualify for permanent positions but have not been given the opportunity to do so.

While civil service and professional educational examinations are not perfect measures of ability to perform the duties of an office, nevertheless, the competitive testing of applicants is the method provided by law. So long as this is the case, that method should be followed. There has been in the past little attempt to adhere strictly to this method.

The survey found that the old administration was guilty of improper classifications, assignments, and budget provisions:

Often, there seems to be little relationship between kinds of qualifications pos-

REORGANIZATION PLAN officially adopted by the Chicago Board of Education on December 10, 1947.



sessed by persons and the positions to which they are assigned, especially in nonteaching fields. There are a number of instances of this. A qualified truant officer performs clerical work and has never served as a truant officer. Teachers are sometimes assigned work in administration offices. Persons in clerical positions are performing duties entirely foreign to the classifications of their positions. A person whose position is classified as statistical clerk serves as a stenographer.

Along with misclassification of positions and misassignment of persons has gone the practice of lending personnel, not for short periods, but for years. The salaries of some employees, year after year, are charged to one organization unit when their services are performed in another. What the budget says often means little so far as actual personnel in a unit is concerned. A budget should mean what it says.

Many of these statements are undoubtedly true of many other school systems, but they give an idea of the size of the task of reorganization.

* * *

NOW that the general plan of reorganization has been developed and approved, there remain the setting up of the new titles and salaries in the budget, complete revision of the rules to incorporate and preserve the changes, preparation and approval of descriptions of the functions of the various positions, and then the appointment and approval of people to fill the positions established. After that will come the even greater task of making the plan work with the people and situations involved and, of course, adapting and modifying it as experience points the need.

One of the most knotty problems is the fact that all of the employees of the board except the superintendent and the employees of the law department come under either a state teacher tenure law (applying to cities of more than 500,000) or civil service. Pension and tenure rights of present incumbents must be protected and new titles and duties for civil service employees cannot be adopted except by reclassification through the civil service commission, which is an entirely separate governmental agency. The new civil service commission appointed by Mayor Kennelly, however, is highly sympathetic and cooperative and these difficulties will undoubtedly be surmounted, but it will take time.

If administrative reorganization were the only problem faced by the Chicago board of education, it would be enough. The Chicago schools, how-

ever, in common with other schools of the nation, are experiencing the necessity of revising salary scales upward in order to maintain adequate and qualified personnel, particularly in the teaching force. There is also a large backlog of unmet building needs which, together with an increase this year of about 15,000 in the kindergarten enrollment and a 200 per cent increase in building costs since the beginning of the war, presents a real financial crisis.

A year ago the board surveyed salary schedules throughout the country and approved a schedule which would place it in line with those of other cities. Working with a committee representing all of the civic, business, labor and educational groups of the city, the board made strenuous efforts to obtain increased funds from the state treasury, where the sales tax was producing unprecedented totals.

These efforts were unavailing, however, and the board was faced with the alternative of increasing the 1948 budget by approximately \$25,000,000 and placing the entire cost of the increase on real estate and personal property, or else failing in its obligation to provide an adequate school system.

The board chose the only course it could in order to cover the transition period adequately and make the necessary salary revisions. On Jan. 20, 1948, it voted a levy of \$96,972,224, which will require a tax rate of \$1.28 per \$100 assessed valuation.

TAX RATE RAISED

The 1947 tax rate for educational purposes was \$0.96 per \$100 assessed valuation, and it can be raised to \$1.28 without putting the city out of line with surrounding school districts and others throughout the state. The total real estate tax bill, however, made up of the levies of all city and county governing bodies, is \$2.75 and there may be some serious resistance if this is increased appreciably. The city is hampered in finding solutions to its problems, and in utilizing new sources of revenue, by an archaic state constitution, and by the fact that it has little home rule and must get approval from the state legislature for everything it does.

Accompanying the preparation of an increased budget is an effort to prepare a clearer and *more realistic* budget than heretofore. As the final budget consists of 470 pages with

more than 30,000 items, this is no mean task. The superintendent and staff, in preparing the 1948 budget for presentation to the board, have made a great effort to show in it every service and position in the entire system, allocated to its proper bureau or department. This will make it difficult to compare the 1948 budget with those of previous years, for what will appear as added positions in many cases will be simply old positions now properly shown in the department where they are functioning.

The Griffenhagen report recommends the abolishment of the position of vice president of the junior colleges, which has been held by William H. Johnson ever since his resignation as superintendent. No provision was made for it in the reorganization order recommended by Dr. Hunt and approved by the board, or in the budget.

JOHNSON TO BE PRINCIPAL

On January 14, 1948, Dr. Johnson's resignation was accepted, to go into effect at the close of the semester. At that time he will revert to an elementary school principalship, which certificate he holds under state law until retirement (unless terminated for cause upon written charges presented by the superintendent and approved by a majority of the board).¹

One of the most difficult reorganization tasks still remaining has to do with the board of examiners. Under state law, Chicago recruits all of its teachers and principals by means of competitive examinations given by a board of examiners consisting of the general superintendent and two others approved by the board of education and recommended by the superintendent. These examiners have a two year term. Their duties and powers are established by law.

At the time the bill setting up one administrative head was being discussed, many of the teacher, labor and civic groups approved a proposal to establish a completely independent board of examiners. The idea was to have examiners appointed for such a long term and in such a manner, and paid such a high salary, that they would be completely impervious to all political and financial pressures.

There were some civic and education leaders, however, who felt that the bill was aimed at correction of an

¹Dr. Johnson has been assigned to the principalship of the McPherson Elementary School.—A.H.R.

ill which had been administrative rather than structural. Others maintained it was entirely opposite in principle to the superintendent's bill, which was designed to centralize responsibility. The bill became so controversial, and efforts to pass the superintendent's bill were so time-consuming, that the board of examiners' bill never came out of committee.

The old board of examiners is, therefore, still functioning but its members never have been reappointed for a definite term. They are serving on a day to day basis, with no tenure. The general superintendent, Dr. Hunt, is now the third member and has been working closely with the other two to build a thoroughly professional service. They have opened all examinations to outsiders with the proper qualifications and have called in the American Council on Education to conduct the principals' examination.

The written examination was held December 22 and 23; the oral interviews probably will be held in February. It is hoped the examination will be completed and graded and a list of principals will be ready for assignment early in April. There are now 60 schools without certificated principals, for this is the first principals' examination to be given since 1936. It is also the first one in 20 years to be open to principals outside of the Chicago system, but of the 633 who applied and whose credentials were accepted, only eight came from outside.

AT "HOPEFUL" PEAK

As one looks back over the long, rough road that has been traveled to reach the present hopeful peak of education in Chicago, one realizes that it has taken many people, working in many different ways, to make progress. One realizes, too, that there have been two sides to nearly every question. One understands painfully the weaknesses, the trials and tribulations and delays of democracy, and the very special problems of the big cities.

However, one sees clearly that educators and lay people working together, with and through their elected and appointed officials, may find common ground and achieve great goals if they maintain mutual respect and strive constantly for understanding, remembering always that it is only for the children and, through them, the future of our nation, that our schools are operated.

School-Made Teaching Materials

Living conditions are improved through study of the community and its problems

MAURICE F. SEAY

Dean, University of Kentucky

THE Sloan Experiment in Applied Economics was started in 1939 when the Alfred P. Sloan Foundation made grants to the universities of Kentucky, Vermont and Florida. The purpose of the experiment was to determine whether—and to what extent—food, clothing and housing in communities could be improved through the schools of the communities.

Much of the work in Kentucky has been in connection with instructional materials. Every teacher must decide not only what to teach, but also what to use in teaching. Good teachers and good schools use materials of four kinds: (1) commercially printed textbooks, library books and periodicals; (2) special-purpose materials designed to meet specific needs, published usually by agencies interested in helping people improve their living standards; (3) school-made materials prepared by teachers and pupils as part of their study of local problems, and (4) the physical and cultural environment of the school—the community itself.

SPECIFIC TEXTBOOKS LACKING

The early emphasis of the Sloan Experiment in Kentucky was upon food. The four schools selected for the experiment had been using no materials that could help them in studying problems of diet—of producing, preserving and preparing food. The textbooks furnished by the state were virtually the only materials found in these schools, and the content of such books of necessity is too general in nature to relate to specific problems of a *region* or a *locality*.

A search for special-purpose materials on food revealed none at an easy reading level. Without such materials, it would be difficult for any school to apply textbook information

to its own needs, to produce satisfactory materials in the school or even to make best use of the community as instructional material. The special-purpose materials were needed as a center for developing expanding interest in the problem of diet.

Since no such materials were available, the staff of the bureau of school service, University of Kentucky, which was conducting the experiment, undertook to prepare books on food to be used in the experimental schools.

USE OF LOCAL RESOURCES URGED

The bureau of school service wished to emphasize the use of local resources in solving local problems. It was decided that the preparation of materials should be a demonstration of the use of local resources. Thus, research workers, writers and illustrators were chosen from among graduate students at the university and teachers in nearby schools. Two of the teachers of the experimental schools were given scholarships to the university so that they might help in planning and producing the first materials. Most of the research and writing staff had had teaching experience in communities similar to those in which the experimental schools were located.

The advisory group for the early stages of the experiment included faculty members of the College of Agriculture and Home Economics, University of Kentucky, state and county health officials and other Kentuckians interested in economic improvement. This group helped in the selection of content for the new materials. Superintendents, teachers, pupils and parents of the communities were consulted to determine what the books should contain.

Early test results and diet checks in the experimental schools and communities also helped determine the

content as well as the grade level of material to be produced. Achievement tests showed a need for easy reading materials. Thus, it was decided to develop readers for the lower grades, to be followed with books more detailed in informational content for the upper grades.

A survey was made of the literature on the production of readers. Criteria were then set up for make-up, style and vocabulary presentation of the Sloan books. These criteria were carefully followed by the writers, designers and illustrators.

Each book was tried out in actual school situations and revised in light of teacher and pupil reactions. Most of the books have also been revised at least once since first publication.

Teachers in the experimental schools were asked how they used the books. They reported that the books were useful with pupils who were beginning to read and with those who were retarded. They provided leisure-time reading for all children and were used as references for study about food. If a textbook furnished a point of departure for introducing topics about food, the Sloan books provided supplementary reading material.

NEW BOOKS A STIMULUS

Teachers who used the Sloan materials reported increased use of the other three kinds of instructional materials. Textbooks had more meaning for the children when accompanied by the Sloan special-purpose materials. The new books served as a stimulus and as guides for many kinds of school-made materials, such as charts, booklets, diaries and equipment for raising chickens, also for such activities as gardening, having fruit stands and preparing hot lunches.

Since the Sloan materials stress the use of community assets in school programs, the teachers who used them also found frequent opportunities to employ the facilities of their own communities. When individuals and community agencies were drawn into the school program, mutual interests and understanding of educational and economic problems grew.

Children found in the new materials an easily readable source of information which they could apply immediately. The action in the stories took place in settings familiar to the children of the experimental schools and the vocabulary was based upon language they could use in their daily



The new materials stress the use of community assets in school programs. Children find them easily readable.

living. The interest of the children in the content of the books was shown when they requested more materials about the same topics but at higher grade levels.

Standardized tests showed that the children who used the Sloan books more than held their own academically in comparison with the children in the control schools. In reading skills especially, the experimental group excelled the control group.

OTHER SCHOOLS INTERESTED

As the experiment in Kentucky progressed, increasing numbers of schools became interested in the program. This was true also at the University of Florida, where a similar experiment in housing was being con-

ducted, and at the University of Vermont, where the experiment was concerned with clothing. As a result of this interest, the universities of Kentucky and Florida began working with additional schools in the two states.

SCHOOLS ARE SELECTED

In Kentucky, the schools selected for the expanded program were near the university so that they could be easily reached for observation. Two were twelve-grade consolidated rural schools, one was a one room elementary rural school and one was a six-grade elementary school in a slum district in Lexington, home of the university. Materials from the three centers were supplied to the schools, and a supervisor was added to the

staff of the experiment to work with the schools.

One result of the supervisory program in these four Kentucky schools was the improved use of the workshop as a method of in-service education. Each summer the teachers met with the staff of the experiment at the university for group and individual work on school and community problems. During the ensuing school year, the supervisor helped the teachers and administrators carry out plans made in the workshop.

The experiment emphasized community participation in the programs of these schools. It demonstrated that when school curriculums are changed to include community problems, adults desire to take part in school activities and make valuable contributions. Community agencies are eager to cooperate in programs which have community improvement as goals. Through the cooperative planning and effort of schools and of other agencies and individuals, communities are able to solve many problems and to avoid others entirely. Education thus becomes more effective, because it is given practical application with visible results.

MATERIALS MADE AVAILABLE

To meet constantly increasing requests, in 1942 the Sloan materials were made available to educators, welfare and social workers, librarians and other persons whose hope was to improve living conditions.

In 1947, a study was made to learn why people in other states and other countries had obtained Sloan materials, what uses had been made of them and what results had been observed from using them. Questionnaires were sent to nearly 2000 persons to whom materials had gone since 1942.

The mailing list included teachers, administrators and supervisors; individuals connected in various ways with higher education; representatives of national, regional and state agencies, such as the Red Cross, the United States Department of Agriculture, the United States Office of Education, the United States Office of Indian Affairs, the Tennessee Valley Authority and state departments of education, health and welfare; librarians; missionaries; housewives, and boy scout and girl scout leaders.

From the responses to the questionnaires, it was obvious that these widely varied groups had recognized the need

for materials of this type. Many reasons were given for obtaining the books, the most frequent being: to improve school programs, to improve teacher education, to improve health and nutrition, to improve family and home living, to improve community living and to improve library service.

Members of these groups were asked how they had used the Sloan materials in meeting recognized needs. Following are the uses checked on a list by those who returned the questionnaire:

- Give teachers new ideas
- Stimulate discussions about food, clothing, shelter
- Provide materials for activities (food, clothing, shelter)
- Emphasize home living (food, clothing, shelter)
- Help in health programs
- Relate learning to present day problems
- Provide reference material
- Help improve curriculums
- Demonstrate how schools can serve their communities
- Provide true-to-life reading material
- Provide supplementary reading materials
- Help improve community standard of living
- Help in in-service education
- Provide material about farm living (food, clothing, shelter)
- Meet individual needs
- Give administrators new ideas
- Help in workshops
- Bring subject matter areas together around common problems
- Recommend for school libraries
- Provide stories about rural life
- Show family unity in working on family problems
- Help in adult education
- Help in remedial reading
- Guide in making charts and other school-made materials
- Guide in preparing material for community work
- Help in pre-service education
- Discover children's interests
- Prepare similar materials
- Interest "problem" children
- Acquaint city children with rural situations
- Plan curriculums for special schools
- Help in club projects
- Provide materials for special teachers

- Help in inter-American education
- Acquaint people in foreign countries with Sloan Experiment
- Provide material for bookmobiles
- Provide materials for welfare institutions

OTHER USES WRITTEN IN

These additional uses were written in:

- Help in college course
- Use in exhibits and demonstrations
- Offer suggestions for use in elementary and high schools
- Show how housing can be improved
- Help in resource-use education
- Show pupils what other pupils are doing to better their communities
- Promote school and community interest on part of parents
- Help in work of state nutrition committee
- Aid in preparation of script for radio classroom program
- Help emphasize safety program

Even more important than the actual employment of the Sloan materials are the results of using them. The materials seem to have been particularly useful in improving teaching and school programs. They have stimulated interest in community problems and resources, especially problems related to the economic necessities, food, shelter and clothing.

Teachers have realized the importance of special-purpose materials and have been encouraged to prepare materials themselves. Pupils who read the books, through improved reading activities, have taken new interest in community affairs. Families and communities have gained a better understanding of their needs and have begun to find ways to meet these needs.

The enthusiastic responses to the questionnaire should greatly encourage all who are preparing instructional materials similar to those of the Sloan Experiment. There is a generally recognized place for such materials; they are sought for, they are used and they produce results.

WRITE FOR YOUR VOLUME INDEX

If you bind your volumes of *The NATION'S SCHOOLS* you will want the index to Volume 40, covering issues from July through December 1947. Continued paper shortages prevent its publication in the magazine. Send requests to 919 N. Michigan, Chicago 11, Ill.

BASIC RESEARCH URGENTLY NEEDED

Practical Studies Could Combat Rising Costs of Education

T. C. HOLY

Director, Bureau of Educational Research
Ohio State University

ESTIMATES of the amount needed to provide satisfactory school housing for all the children in the nation vary from \$5,000,000,000 to \$11,000,000,000. According to the figures supplied by the U. S. Office of Education, the total value of all school property in 1943-44 was slightly less than \$8,000,000,000, so the estimate of present needs approximates this total value of three years ago.

Whatever the exact amount required, it seems reasonably certain that within the next decade we will spend far more for school building improvements than we have done in any previous year. Furthermore, when we consider that these building improvements will influence education in the United States up to the year 2000 and beyond, the importance of building our schools in the most effective manner cannot be overemphasized.

In commenting on a list of problems needing investigation in the school plant field, George F. Zook, president of the American Council on Education, made the following statement:¹ "In the improvement of American education, there is scarcely any factor more important than the school plant and certainly none more definitely related to public economy."

BASIC RESEARCH LACKING

How well, then, have the basic questions in the field of school planning and construction been answered through carefully organized and controlled research? Unfortunately, only a few of them have been thus answered. Commenting on a chapter on "School Buildings," prepared after a careful examination of hundreds of publications on various phases of schoolhouse planning and construction, in the 1932 issue of the *Review of Educational Research*, Homer W. Anderson, then superintendent of schools in Omaha, Neb., and later superintendent in St. Louis, wrote: "Actual research almost entirely lacking." In the foreword to the 1935 issue of

of the same publication, the chairman of the committee responsible for preparing these two issues states: "In the judgment of the writer the most significant thing brought out by these two issues dealing with the school plant is the lack of basic research in the field."

Similar quotations from persons familiar with the school plant field might be included here. Suffice it to say that carefully controlled research studies of the manifold problems involved in the planning, construction, operation and maintenance of a school building have been very few.

WORTH THE COST

Such being the case, the question might be raised: Is research as applied in other fields worth its cost? Perhaps the best answer is found in the trend of expenditures for research in the fields of industry and government. In Bulletin 90 of the American Council on Education entitled "Higher Education and National Defense," under date of August 20, 1945, is the following:

"It is now a commonplace in the history of American science that the importance of research, particularly applied research, was enhanced by the technological demands of World War I. The even greater demands of World War II have caused a tremendous expansion in America of public and private research activity. In terms of total financial outlay this expansion (in private research) has increased twofold since 1938 (\$350,000,000—\$800,000,000); in terms of government expenditures for research the expansion has been more than tenfold (\$68,000,000—\$706,000,000)."

Further evidence of the importance of research in the industrial field is the following statement from the 19th annual report² of the Radio Corporation of America.

Our service to the radio industry, and consequently our income from it, is made possible only by continuing research, for radio is an advancing art.

Additional evidence is found in a report entitled "Research—a National Resource," compiled by the National Research Committee in 1939. According to that report, the annual return from 22 specific research accomplishments of the Bureau of Plant Industry of the United States Department of Agriculture was \$230,000,000. This amount is about 15 times the total amount spent annually for all research by the Department of Agriculture at that time.

SCIENCE BILL VETOED

Recognizing the importance of research and the necessity of supporting it in part from federal funds, Congress in 1947 passed a National Science Foundation Bill. The bill was vetoed on August 6, 1947, by President Harry S. Truman, on the ground that the plan for administering the funds for the foundation was administratively unsound. In his veto message he said:

"I am convinced that the long-range interest of scientific research and education will be best served by continuing our efforts to obtain a Science Foundation, free from the vital defects of this bill. . . . I hope that the Congress will reconsider this question and enact such a law early in its next session."

Since, as already stated, little research actually has been done in the school plant field, one might inquire what effort, if any, has been made to organize and carry on such research. So far as I know, the major attempt to do this on a nonprofit basis has been made by the American Council on Education. Following the preparation by a small committee of a "Proposal for a Program of Research in the Field of School Buildings," the council set up a School-Plant Research Council in 1937. Two of the reasons in that proposal as to why the research therein outlined should be undertaken were:

1. Thirty-five per cent of all money expended for public education goes to construct, operate and maintain the school plant. School plant funds come from the

¹Annual report, 1937-38.

²December 31, 1938.

same source as those for instruction. Where economies can be effected, the savings may be used to improve instruction, to provide additional and necessary school buildings or to reduce taxes.

2. Existing information on how to spend most economically the money required annually for the school plant (more than \$700,000,000) is very inadequate and usually unscientific.

FINANCIAL SUPPORT LACKING

That council, which in 1947 was expanded and its name changed to Committee on Educational Building and Equipment, has been in continuous existence since it was first organized in 1937. Although Dr. Zook, with the assistance of the School-Plant Research Council, has persistently sought financial support for school plant research, his efforts have been successful in only a small degree. One foundation made a grant of \$30,000 for experimental work in school furniture. Because the project had to be closed during the war, about 40 per cent of the original grant lapsed.

Under the sponsorship of the School-Plant Research Council, Francis R. Scherer, a member, made a study of the utilization of school sanitary facilities. Workers in the school plant field have long believed that the code and regulatory requirement with regard to the number of water closets and urinals were too high. An investigation based on actual time use was carried on in 39 schools, located in 25 school districts in 15 states and in Canada. These schools had a total enrollment of 38,984. The study produced the following recommendations on the ratios of sanitary installations to enrollments.

	Ratio
Girls' water closets	
Elementary school	1:35
Secondary school	1:45
Boys' water closets.....	1:100
Boys' urinals	1:30

This study, under the title of "The Utilization of School Sanitary Facilities," was issued by the American Council on Education in June 1942. The recommendations listed are from one third to one half below the requirements found to exist in the eight states and 11 cities which were examined as a part of the study. Obviously this reduction, particularly in the light of present building costs, represents a sizable saving and illustrates what would undoubtedly result, in terms of either savings or better facilities, or both, if an adequate pro-

gram of research was set up in a school plant field.

Another national organization which likewise has been interested in research in this field is the National Council on Schoolhouse Construction. In November 1935, it passed unanimously a resolution urging the American Council on Education to obtain the necessary financial assistance to get under way a comprehensive survey of research in the school plant field.

Similar actions have been taken from time to time since that date, with little success. However, in 1946, a grant of \$4000 was received for the purpose of revising the standards for school building construction which it had developed over the last twenty years. This has been done in the form of "A Guide for the Planning of School Buildings" which has now been issued in tentative form.

PROBLEMS NEEDING RESEARCH

In what areas, then, is practical research now urgently needed? The answer is that in every major area of the field there is need of further investigation. In the 1949 Yearbook of the American Association of School Administrators, to be entitled "School Building," one of the chapters will deal with "Unanswered Questions." In that chapter will be listed the major problems needing research and further study. They include:

1. The size and location of sites.
2. The ratio of classroom floor space per pupil in the various types of instructional rooms.

3. Proportion of floor space which should be allotted to different school activities, such as administration, library, physical education, health, shops, laboratories, classrooms and community needs.

4. Reliable methods of determining the room requirements for a given educational program.

5. How best to get the maximum flexibility in design and construction to meet rapidly changing educational requirements.

6. Maintenance and operation costs in relation to the size of building and type of construction.

7. Optimum building size, in relation to construction, operation and maintenance costs.

8. Satisfactory building materials, taking into account original cost, availability and utility.

9. Acoustics. There is a need to study the effects on pupils and teachers, the satisfactory methods of acoustical treatment of the different space facilities in school buildings and the general educational benefits of sound-treated rooms.

10. Design, decoration and color, both inside and outside school buildings, including landscaping, as they affect pupils.

11. Lighting, natural and artificial.

12. Heating and ventilation.

13. Further studies of toilet requirements and their location. The evidence earlier presented in this chapter indicates that present standards are unduly high.

14. Drinking and washing facilities and their location.

Of these problems, undoubtedly the most controversial two are lighting, and heating and ventilation. Some of the questions yet to be answered in these two fields, are included here. Problems in classroom lighting are:

1. The effect of different types of window shades and wall paints on natural lighting.

A REAL BOOST toward substantial savings would result from carefully controlled studies of the manifold problems involved in the planning, construction, operation and maintenance of a school building. Major problems include size and selection of school sites; proper allocation of floor space; satisfactory building materials; adequate lighting, heating and ventilation; acoustics, and other factors affecting health or instructional efficiency.



2. The effect of window mullions of different widths on natural lighting and the visibility of blackboard writing.

3. The physiological effects of long working exposure with low and high intensities of natural lighting on the working surface.

4. The effect of natural lighting below eye level.

5. The relative illumination from clear glass windows and glass blocks.

6. The effect of lateral blackboards on desk lighting.

7. The feasibility of automatic photonic control as a solution of light variability.

8. The effect of building orientation, ceiling heights and room widths on lighting.

9. Is unilateral lighting suitable for classrooms where tables and chairs are used?

As further evidence of the present situation in the lighting field there is quoted here the unanimous action of the National Council on Schoolhouse Construction at its annual meeting October 12, 1947.

That the council instruct its liaison members, cooperating in the revision of the 1938 standards of School Lighting of the American Standards Association, that it does not believe that sufficient scientific evidence has been presented to justify the inclusion in the pending revision of these standards of a minimum intensity of 30 foot-candles for standard classrooms and, further, that the council renew its efforts to have carefully controlled experiments conducted by impartial investigators to ascertain optimum lighting conditions for comfort, health and learning.

In the field of heating and ventilation some of the unanswered questions are:

1. Is open window ventilation invariably satisfactory?

2. If mechanical systems of heating and ventilating are used, how many cubic feet of air per pupil are required?

3. To what extent and under what circumstances can air be safely recirculated?

4. What are the optimum temperature and humidity conditions for health and learning?

5. Is air conditioning feasible and economical under typical school conditions?

6. What are the relationships between building design and building materials and ventilation problems?

Of the groups in the field of education concerned with the satisfactory solution of these many problems, certainly school administrators rank first. It is urged that they give their support, through the American Association of School Administrators, to the Committee on Educational Buildings and Equipment of the American Council on Education, mentioned earlier in this discussion.

This can be done most effectively by cooperating with the committee in studies which it may undertake and by assisting in obtaining the necessary funds for such investigations. Certainly, no one can explore the school plant which plays such a vital part in our educational program without being tremendously impressed with the need for attacking the many problems it presents in a comprehensive and scientific manner.

"THE EXPANDING RÔLE OF EDUCATION"

Yearbook of the A.A.S.A. Views 1948 as a Year of Decision

HEROLD C. HUNT

General Superintendent, Chicago
Chairman, A.A.S.A. Yearbook Commission*

PUBLIC education in the United States must be greatly extended and improved. This obligation is imperative not merely to develop and to perfect but to safeguard and maintain those culture patterns and democratic processes which are America. Such is the cornerstone of the 1948 Yearbook of the American Association of School Administrators.

*Members of the Yearbook Commission are: Herold C. Hunt, chairman; George A. Bowman, president, Kent State University, Kent, Ohio; Lawrence G. Derthick, superintendent, Chattanooga, Tenn.; John R. Emens, president, Ball State Teachers College; B. M. Grier, superintendent, Athens, Ga.; Paul B. Jacobson, dean, school of education, University of Oregon; Earl S. Johnson, associate professor of the social sciences, University of Chicago; Lawrence B. Perkins, architect, Perkins and Will, Inc., Chicago; Sherwood D. Shankland, secretary emeritus, American Association of School Administrators (deceased); Maycie Southall, professor of elementary education, George Peabody College for Teachers, and Terry Wickham, superintendent, Hamilton, Ohio.

The extension and improvement advocated by the Yearbook Commission may be described as three dimensional. In the horizontal plane, extending in length and breadth, *educational opportunities need to be provided for more people*. In the vertical plane, *the educational program needs to be vitalized and enriched*.

NEW AND BROADER FUNCTIONS

The yearbook begins with an overview of present day America. It compares our national practices with our national ideals, then points out the inherent function of the school in helping to close the gap between them. The analysis gives force and meaning to the commission's statement that "neither the schools of yesterday, nor indeed the best schools of today will suffice. There is a larger rôle for education, and the school as

a dynamic social institution must be adapted to new and broader functions."

The major portion of the yearbook attempts to formulate as clearly as possible the essential features of an acceptable program. Chapters II through V deal with the "horizontal expansion," which has been mentioned. In unmistakable terms they propose that the door of educational opportunity must be opened to: (1) young children below compulsory school age; (2) adolescent boys and girls who, for some reason, are not attending school; (3) older youths and adults, and (4) exceptional children of all ages.

Turning, then, to some of the types of extension and enrichment which the times demand, the yearbook deals with four areas: (1) health and fitness, (2) work experience, (3) world citizenship and (4) the use of multi-sensory aids to learning, including outdoor education. In choosing these areas

the commission does not mean to imply that these are the only ones in need of improvement, but that these areas thus far have been too often found in the "twilight zone" of accepted practice and seem now to merit special priority in educational planning.

Chapters X to XII, inclusive, are concerned with ways and means of implementing the suggested program, with its implications in terms of personnel, school buildings and finance. "The nation has not yet set its hand seriously to the task of financing an adequate school program," declares the commission. "The kind and amount of education essential to the preservation of this democracy simply cannot be obtained for 'cigaret money.' It is high time this fact is faced by the American people with candor and determination."

A DISTURBING VOLUME

If any superintendent lacks the initiative or courage to give genuine leadership, he will do well to black-list "The Expanding Rôle of Education." For him, it will be a disturbing volume. With disquieting frequency the yearbook will remind him of his professional obligations and will suggest specific duties for him to perform. The yearbook points out that public education in the United States never has attained full stature.

In theory, we have long been committed to the proposition that every child should have access to the schools. But, in practice, many have had no reasonable chance to attend them. In theory, every school is to be a good school—safe, comfortable, well equipped, and taught by a professionally trained teacher. In practice, many schools are of substandard quality by nearly every measure of educational efficiency. To narrow the distance between "the schools we have" and "the kind of schools we have said we want" is the first important reason for an expanded and enriched school program.

ACCUMULATED LOSSES

A second reason for expansion and enrichment of education now is that the schools, in the immediate past, have met with serious reverses. First a major depression and then the circumstances of war and postwar readjustment have interfered with school-house construction. For nearly a decade, relatively static budgets in a

period of increasing costs have hampered every phase of the education program. Especially serious has been the acute shortage of well qualified teachers, a situation which still persists, levying a heavy toll on classroom efficiency. These and other losses attributable to national crises need to be quickly retrieved.

UNPRECEDENTED TESTS

However, even more impelling than these reasons is the fundamentally greater demand for education which is inherent in these times. In the new era of world events which suddenly has been ushered in, American democracy no less than other forms of national government will have to meet unprecedented tests. In this new era the United States finds herself in a new position of world leadership, with larger opportunities but also with vastly greater obligations than she has ever known. Social and economic problems, both domestic and international, are appearing and growing at alarming rates. Some of them already have reached threatening proportions.

In such an emergency some countries would rely upon the ability and wisdom of the few. In this country, however, such a course is impossible. Clearly, the degree of success that can be achieved when government is by

the people is determined by the level of intelligence and foresight of the people. In a democracy, the more numerous and complex the problems become, the higher the standards of civic competence must be.

Fully conscious of all these needs, the 1948 Yearbook Commission has attempted in this volume to formulate as clearly as possible the essential features of an acceptable program.

Each chapter is preceded by a list of "Things to Do." These are not mere clues to the chapter content but selected examples of the kinds of specific action which it is hoped every superintendent will take.

GUIDED BY PUBLIC OPINION

The final chapter in the yearbook warns the superintendent that "education is rooted in social policy" and that, as he moves step by step toward an expanded program, he must make sure that the public is with him. The administrator is warned against spineless surrender to various forms of pressure. He is told how to evaluate and to derive wise guidance from the force of public opinion.

Educationally, the year 1948 will be a year of decision for many American communities. Will those decisions carry the schools forward toward the enlarged, dynamic program on which our democracy so vitally depends?

More Babies—More Schools

THE NUMBER of births in the United States has reached a new high. The average monthly figure has risen from 188,799 in 1939 to 314,375 for the first seven months of 1947. If this rate continues, the current year's births will total nearly 4,000,000. . . .

Though the baby boom is not expected to last much longer, it has radically changed the long-run population outlook. Because the increase in the birth rate has been accompanied by a decline in the death rate, the total population of the country has grown by nearly 14,000,000 since 1939. There are more than 144,000,000 people in the United States today, and another 5,000,000 will be added before the end of 1950. Moreover, the Census Bureau, which formerly predicted a maximum of 160,000,000 to be reached ten years from now, has raised its estimate of the peak to 175,000,000 and has postponed the

peak year to the end of the century.

This change means more workers and more consumers than had previously been expected and a greater total national output and income. The addition of millions of buyers will lift the demand for food, clothing, furniture and automobiles. *More houses and schools will be needed*, more electric power, more transportation facilities, highways, public works. . . .

Population growth, of course, is not the same in all sections of the country. From 1940 to 1946, for example, the Far West¹ gained 37 per cent, while the Northwest² lost 2 per cent. Other regions gained from 4 to 8 per cent. . . .

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¹California, Nevada, Oregon, Washington.

²Colorado, Idaho, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, Wyoming.

Names IN THE NEWS

SUPERINTENDENTS

James A. Lewis takes office February 1 as superintendent at Dearborn, Mich. The position has been vacant since last fall following the resignation of **F. Eugene Mueller**



James A. Lewis

who accepted the superintendency at River Forest, Ill. Prior to his two years as superintendent at St. Joseph, Mich., Mr. Lewis served in Dowagiac, Mich., as superintendent, 1941-46; as high school principal, 1935-41, as a teacher and coach, 1930-34.

John A. Sexson, superintendent at Pasadena, Calif., for twenty years, retired from the school field January 1. Dr. Sexson served as president of the California Teachers Association and was for seven years a member of the Educational Policies Commission of the N.E.A. Before going to California, he served as superintendent of schools in Colorado and Arizona. More recently he was president of the Horace Mann League of America.



Harold E. Moore

Herold C. Hunt who is now general superintendent in Chicago. Dr. Moore is a former member of the faculty of Indiana University.

Orlo J. Robinson, principal of the Copernicus Junior High School at Hamtramck, Mich., has accepted the superintendency in that city. The position has been vacant since last summer. He succeeds **Myron A. Kopka**, now affiliated with Wayne University.

Alexander J. Stoddard, superintendent of schools in Philadelphia, has been re-elected for a six year term at a salary of \$18,690.

David P. Hardy, assistant superintendent in charge of buildings and grounds, San Francisco school system, has retired. Mr. Hardy is a veteran of

World Wars I and II, having attained the rank of brigadier general in World War II. He served as deputy superintendent and as assistant superintendent under five superintendents of schools.

Philip Madonna, superintendent of the consolidated schools at Prospect Valley, Colo., is now superintendent at Keenesburg, Colo. **Edwin Piper** succeeds him at the former location.

Roy Farthing, superintendent of schools at Kersey, Colo., is now superintendent at Eads, Colo., having been succeeded by **O. B. Lauth**.

Delia Carolan is the new superintendent of schools of Rosebud County, Montana. She succeeds **Everett Redeen**.

T. Olaf Hageness, superintendent of county schools in Washington State, has accepted the position as business manager of the Clover Park school district, Tacoma, Wash. He will be succeeded by **Mrs. Ruth Bethel**, assistant superintendent, who carried on the duties of the superintendency during the time Mr. Hageness was in the navy.

John E. Wade, recently retired superintendent of schools of New York City, has been elected a member of the board of directors of the Save the Children Federation.

Mrs. Betty Schultz, assistant superintendent of schools in Grant County, Oklahoma, has been elected county superintendent, succeeding **Mrs. Pearl Randels** who resigned to become a member of the faculty of the Pond Creek school system.

Maxine Frey is the new superintendent of schools in Caddo County, Oklahoma, having been advanced to that position from the assistant county superintendency.

John W. Agans, superintendent at Woodburn, Iowa, has retired from school work. Mr. Agans began teaching fifty-six years ago at Murray, Iowa, and has since served as superintendent in a number of communities, at least half of his career having been spent in mining camp districts of southern Iowa.

Howard R. Cromwell is now superintendent of schools at Glendale, Ohio.

E. C. Long, principal of the Harris School at Madison, Ill., has been made superintendent of schools.

Russel S. Hilbert, formerly superintendent of schools at Romeo, Mich., has resigned to become superintendent of Redford Union School District, P. O.

Detroit. He will be succeeded at Romeo by **E. W. VanAken** of Armada, Mich.

M. C. Wolfe, formerly superintendent at Marlette, Mich., will be the new superintendent at St. Joseph, Mich., succeeding **James Lewis**.

Harold Baine, former superintendent at Sherrill, N.Y., is now district superintendent of Cayuga County District No. 3 in that state.

Walter G. Clifford, recently appointed superintendent at Canastota, N.Y., was formerly principal of Caledonia High School.

Harold E. Davey, former principal of Griffith Institute, Springville, N.Y., is now superintendent at Pleasantville, N.Y.

William E. Hawley, new superintendent at Brighton, N.Y., was formerly principal of Monroe High School Rochester, N.Y.

Lawrence C. Lobaugh is superintendent of the new Lindenhurst village school district, New York State.

PRINCIPALS

Agnes I. Kinnear, principal of Eliot Junior High School, Washington, D.C., since its organization in 1931, has announced her retirement, effective at the end of the school year. Mrs. Kinnear was first appointed to the Washington school system in 1899.

Charles E. Bish, associate professor of education at George Washington University, was recently appointed principal of McKinley High School, Washington, D.C. He succeeds **Frank C. Daniel**, who retired October 31.

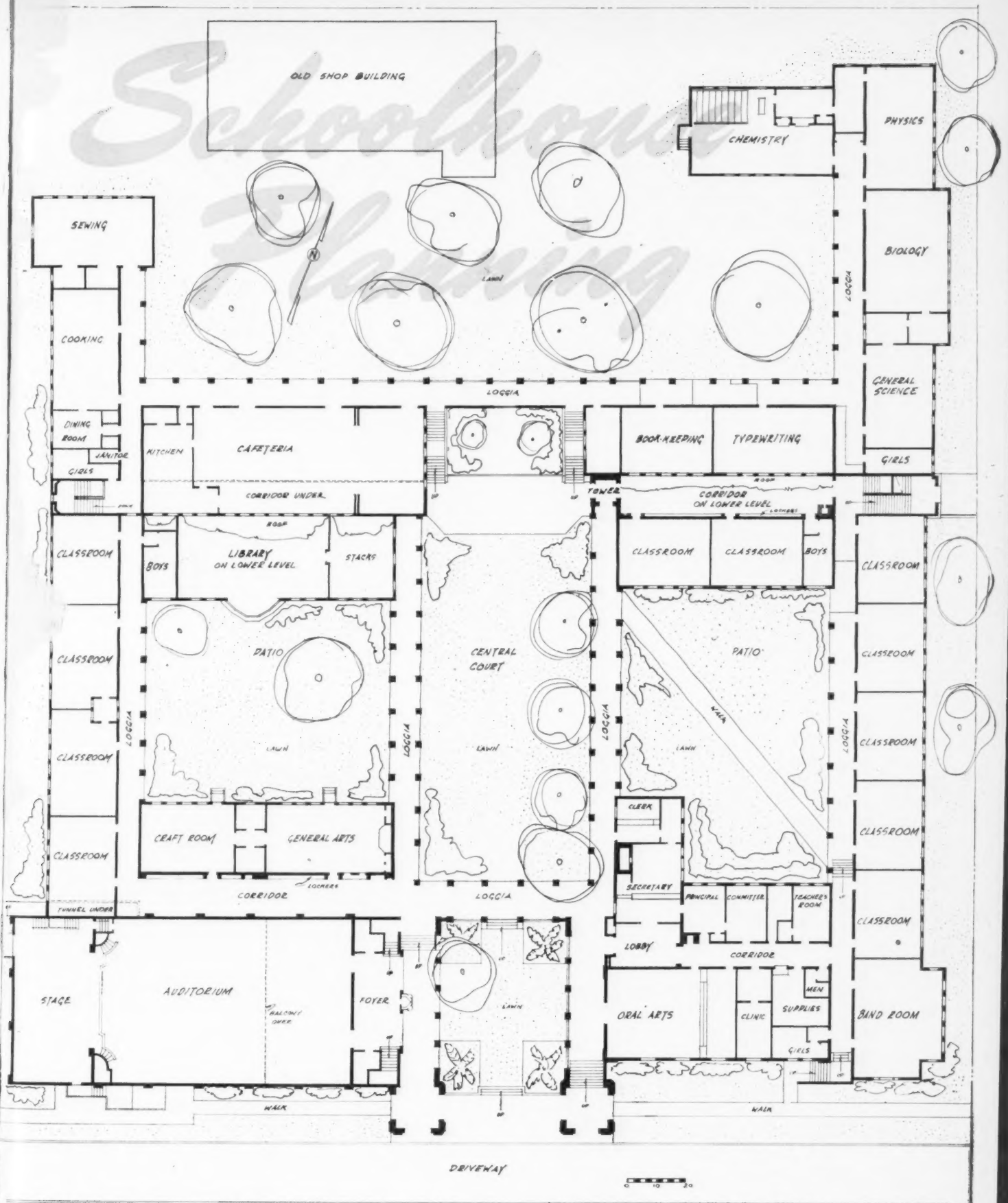
Lt. Col. John Mason Kemper, executive assistant to the army's chief historian, has been elected headmaster of Phillips Academy, succeeding **Claude M. Fuess**, who will retire next July.

Thomas McLaughlin is the new principal of the Union High School at Hereford, Ore., having been formerly with the high school at Redmond, Ore.

Earl McCray is the new principal of the high school at Bison, Kan., succeeding **D. A. McKnight**, who resigned. Mr. McCray has taught in various high schools in the West.

Edison O. Bates, for many years teacher of biology and mathematics in the Port Allegany High School, Port

(Continued on Page 96.)



Plan of Union High School, Santa Paula, Calif.

FOR THREE CLIMATES

Pacific Northwest

FOR LONG RAINY SEASON TRY TRILATERAL LIGHTING

CLARENCE HINES

Superintendent, Colin Kelly Junior High School
Eugene, Ore.

NOT THE LEAST of the interesting features of the Colin Kelly Junior High School, Eugene, Ore., is the fact that the name was selected by the first student body to occupy the building.

The new building houses 400 junior high school students from seven adjacent suburban districts which consolidated with the public school system of Eugene in 1945. Subject to wartime and postwar delays and substitution of materials, the school was occupied as substantially completed in January 1947.

Wise planning, carefully worked out architectural details and sound construction have resulted in one of the outstanding schools in the Pacific Northwest. The use of native wood and brick combined with interesting architectural features makes it a building that probably will have considerable influence on school construction in this section of the United States for the next few years.

Located in the Willamette Valley of Western Oregon where overcast skies and rain are common from October to April, the building features large window areas in all rooms. In fact, to visitors the amount of natural light in the rooms is the outstanding feature of the building. Classrooms, opening off a common corridor, are separated from one another and have windows on three sides.

High windows, the bottoms more than 6 feet above the floor, are on the west side of all rooms and full length windows are on the east. There are additional full length windows on the north or south walls of the classrooms, depending upon whether the room is on the north or south side of the cor-



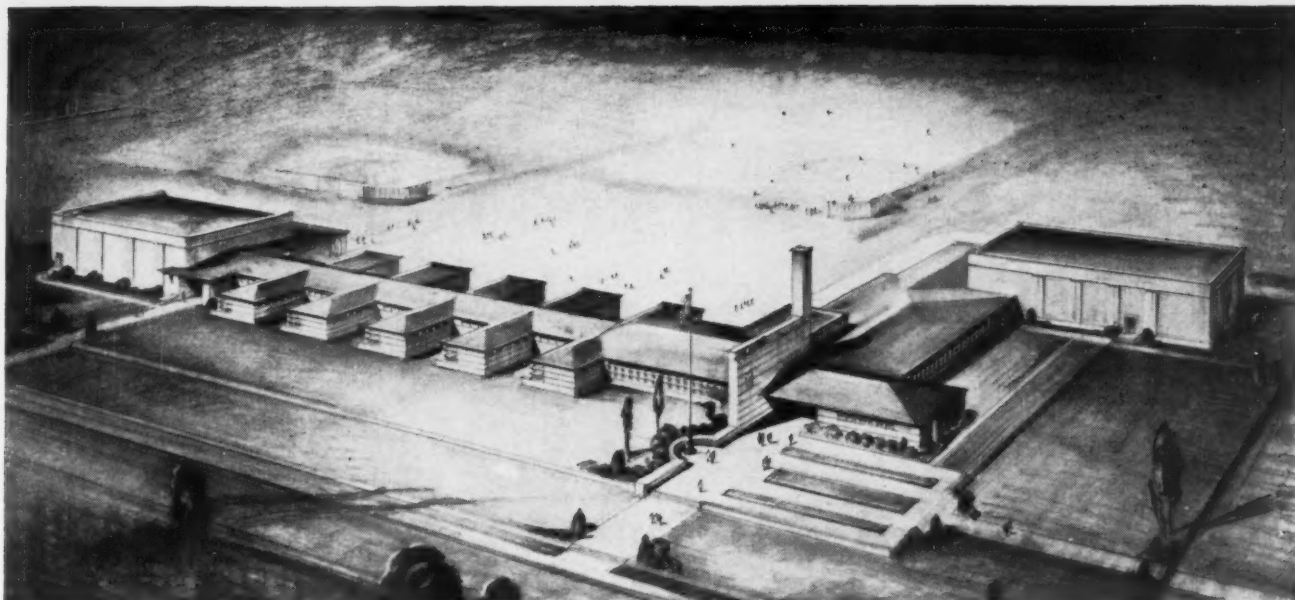
View of the main entrance and pylon.

ridor. All rooms are adequately supplied with artificial light from modern fluorescent fixtures recessed in the ceiling.

Classrooms, the key point in the instructional program, are improved over traditional rooms by having 10 by 14 foot conference rooms adjacent. In such subjects as social studies and health, which lend themselves readily to group or committee work, these

rooms are of great value because small group projects can be carried on without interruption of work in the main classroom. Each conference room is equipped with a sink and hot and cold water connections.

In keeping with the increased emphasis on physical education, the Colin Kelly school has separate gymnasiums for boys and girls. The girls' gymnasium, which has a large stage, store-



Sketch of Colin Kelly Junior High School with its separated classrooms with windows on three sides.

rooms for stage equipment and dressing rooms, does double duty as the school auditorium. It seats 800 persons on folding chairs, which are stored under the stage on carts.

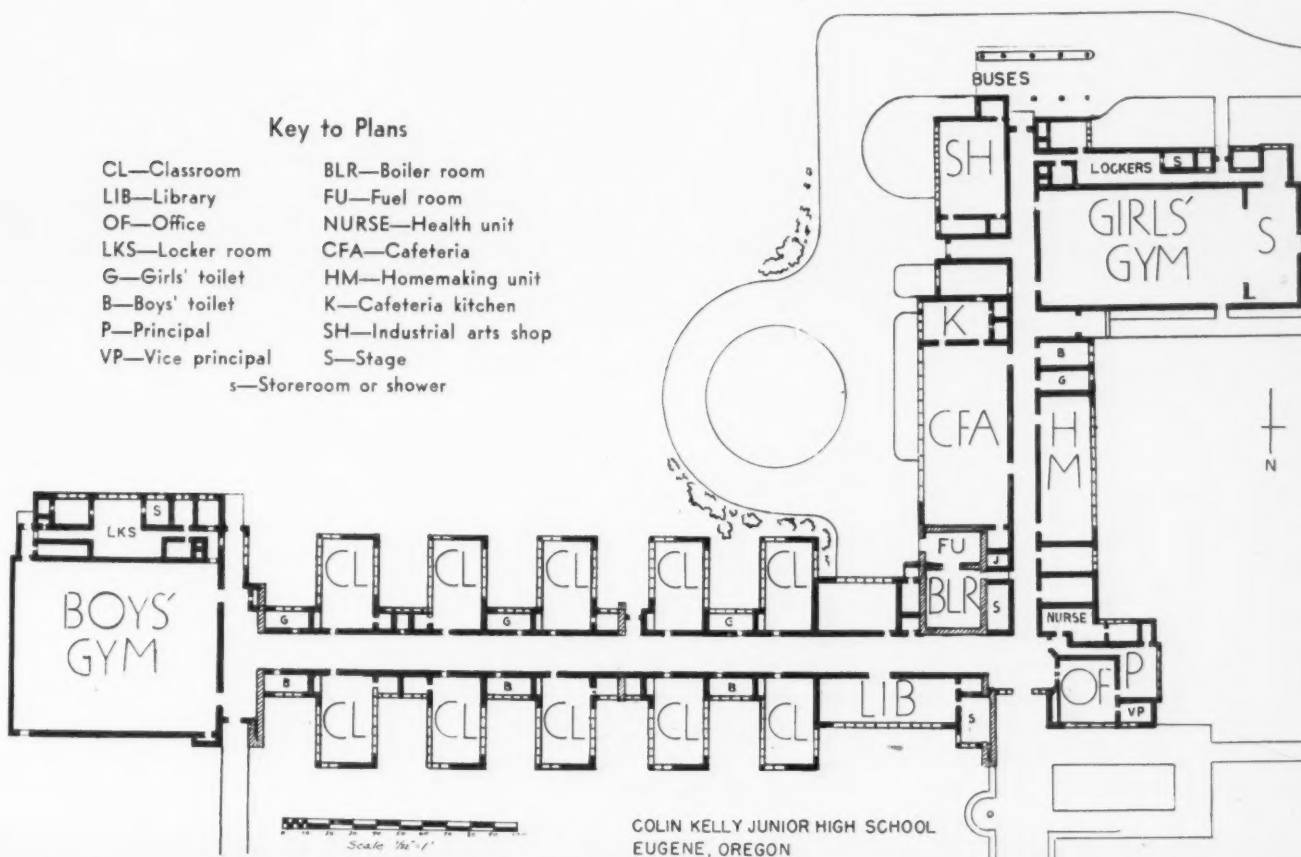
The boys' gymnasium, located at the opposite end of the building, has a larger playing floor, adequate dressing space for classes and teams, store-rooms for indoor and outdoor equipment, and folding bleachers seating

750 persons. Noon hour and after-school social and dramatic activities are carried on in the girls' gymnasium and auditorium while the boys' gymnasium is used chiefly for the sports program.

Toilet rooms are located at convenient intervals throughout the building, not banked at one or two locations as has been customary. Arranged in units of four accommodations for both boys

and girls, they are placed within a short walking distance of any room. This is important since the north wing of the building is 600 feet long and the west wing, 400. These rooms and the shower rooms are wainscoted to the top of the door casing in glazed tile; floors are tile and partitions, metal.

The girls' gymnasium and auditorium, the cafeteria and kitchen, the





Industrial arts shop and girls' gymnasium are located in the west wing and with the homemaking unit and boys' gym may be opened separately for public use.

homemaking unit and the industrial arts shop are located in the west wing of the building. A folding iron gate in the corridor makes it possible to open these facilities for public use without opening the remainder of the building. The same arrangement is possible with the boys' gymnasium. The whole building may be heated or the west wing alone or the boys' gymnasium alone.

The junior high cafeteria, which will seat 300 for banquets or dinners, has a low stage at the end opposite the kitchen which can be completely shut off from the main room; it is used by the band and orchestra during the school day and on occasional evenings as a stage for programs or for a speakers' table at banquets.

The administrative unit consists of a public office, storeroom and offices for the principal and the vice principal. Adjoining it, and so located that it can be readily supervised from the main office, is the health unit. This consists of a sick bay containing five cots, an examination room, a first aid room with sink, cupboards, closet and a toilet. Entry and exit arrangements facilitate the routing of a continuous

line of children for examinations or immunizations through the unit without interference.

The library, a well lighted room on the north side of the building, seats 80 students. There is a large, well equipped workroom for the librarian and adjacent to it a conference room for student use. The latter is separated from the library by glass panels which permit supervision by the librarian from any point in the library but not from the workroom.

The building is constructed on a concrete slab over a gravel fill, is of standard frame construction with cedar siding and with plaster over plasterboard for interior walls. It makes use of brick veneer up to window ledge height and for a pylon, adjacent to the main entrance, which ties into the heating plant chimney. Corridors are finished with vertical grain Douglas fir boards, stained and varnished.

All ceilings are acoustically treated with perforated tile cemented to plasterboard. Corrugated structural glass is used for sidelighting the main entry and the office entrance. This gives a large amount of natural light in the lobby. Asphalt tile is used on all

floors, lighter colors appearing in the library and classrooms and darker shades in the corridor and special rooms.

The contract price for the building was \$365,000, a cost of about \$6.41 a square foot. Extras and equipment brought the total cost to almost \$390,000. The first appraisal for insurance purposes set the value for building and equipment at almost \$500,000, the increase being due to the rapid rise in building costs. Provision has been made for the addition of a maximum of six additional classrooms to provide for a possible student body of from 650 to 700.

About 90 per cent of the students are transported. A bus canopy, adjoining the girls' gymnasium on the south, permits two buses to load or unload at the same time. An asphalt driveway gives access to the loading area and a turn-around in the rear of the building permits the buses to go in and out without backing. The drive also allows for making deliveries to the fuel room, shop and cafeteria. Sawdust is used for fuel.

The building was designed by Wolff and Phillips, Portland architects.



SANTA PAULA UNION HIGH SCHOOL

So. Calif. PATIOS AND OPEN CORRIDORS

FREEMAN M. EAKIN

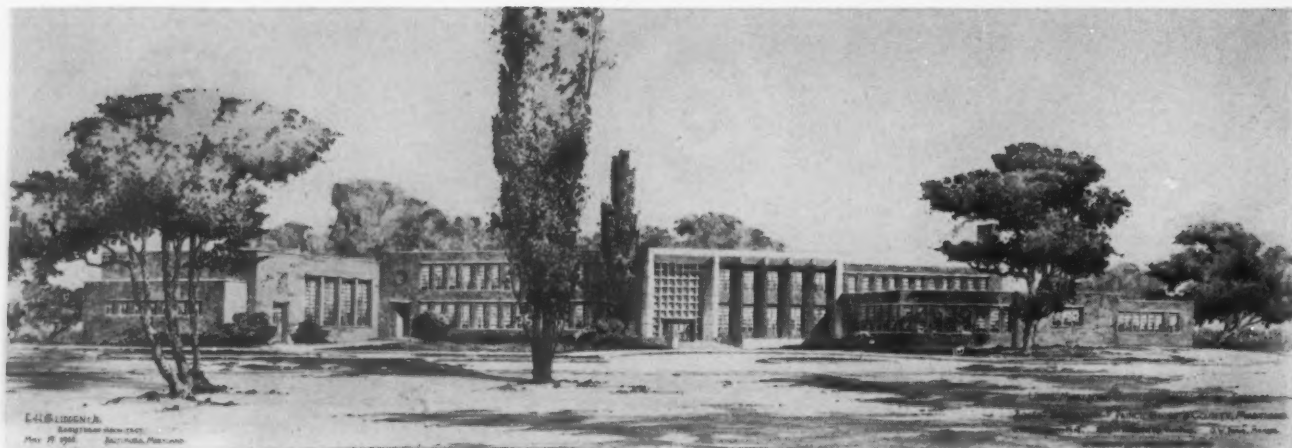
District Superintendent and Principal
Santa Paula Union High School, Santa Paula, Calif.

PICTURED above is a portion of the school plant of the Santa Paula Union High School, Santa Paula, Calif. Facilities include tennis courts and a baseball field, used also as a girls' athletic field; a gymnasium; an auditorium seating 986 with a 30 foot deep stage. A Memorial Hall used for oral arts, choral groups and public seats 140. Classrooms are on two levels, each having two patios

with surrounding rooms. The patios are adjacent to a center court with an outdoor stage. Industrial and practical arts, sciences and business classes are housed around one court. An additional shop building, a swimming pool and a girls' gymnasium are planned.

For detailed plans of the school, see page 33. Frederick Kennedy Jr. of Pasadena was the architect.





JUNIOR-SENIOR HIGH SCHOOL

Eastern Shore

ORIENTATION TO THE SOUTHWEST FOR CLASSROOMS AT 40° N. LAT.

THE Upper Marlboro Junior-Senior High School, now under construction, is located upon an 11 acre site at the edge of Upper Marlboro, Prince Georges County, Md. Designed for approximately 550 students, it may be expanded to accommodate a 50 per cent increase in school population.

The Prince Georges board of education wanted a building layout that would permit efficient operation from the educational point of view; simplify administration and maintenance, and encourage community use of the library, auditorium, gymnasium and cafeteria.

The main entrance to the building faces east. Parking facilities at the northeast corner of the lot are conveniently located with respect to library and auditorium. The rest of the site will be devoted to recreational facilities, including a football field and baseball diamond.

As may be noticed from the plan, the building is arranged to provide maximum quiet in the library-classroom section, with the shops and the cafeteria located at the extreme south end, where noise generated in these areas will not interfere with activities requiring quiet.

Classrooms are given preferred location from the point of view of daylight illumination, their orientation being to the southwest which investigations by this office have proved

affords the best possibility for daylight illumination. As a result of these studies, in connection with which the cooperation of the Maryland Academy of Sciences was given, it was mathematically determined that at 40° north latitude, which is approximately that of the site, a larger quantity of satisfactory natural illumination is available than is provided by any other

CONSTRUCTION DETAILS

GENERAL DATA: Exterior walls, cinder concrete block veneered with brick. Floors and roof, reinforced concrete, except over shops, gymnasium and auditorium, where steel deck on steel joists or trusses is used. Interior surfaces of exterior walls and interior partitions, cinder concrete block or glazed structural tile or combination of two.

FLOORS: Corridors, cafeteria and toilets, terrazzo; gymnasium, maple; classrooms, asphalt tile over concrete.

WINDOWS: steel; bottom vent section swings in; upper vent section swings out.

DOORS: Flush construction, both interior and exterior.

LIGHTING: Classrooms, fluorescent fixtures; cafeteria, corridors and toilet rooms, incandescent.

HEATING: Steam through boxed fin type of radiators placed under windows, except in gymnasium and auditorium where heated air is used in combination with window radiation.

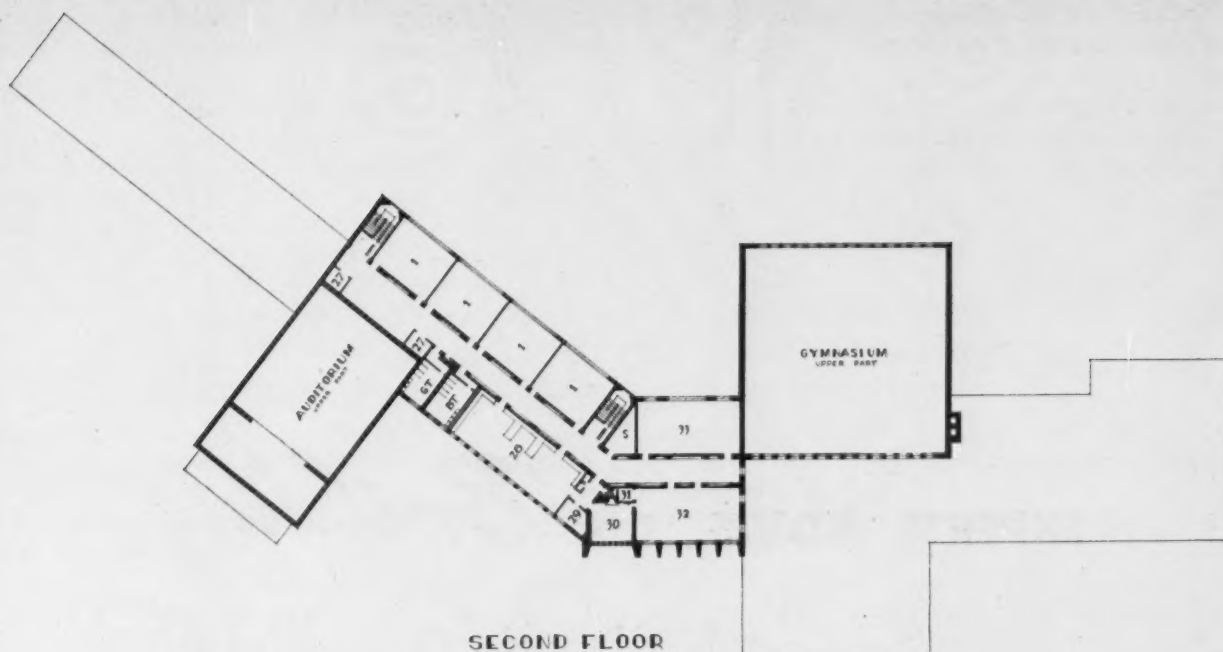
VENTILATION: Mechanical extraction through masonry ducts connected to each room and built into corridor wall. Fresh air admitted through windows except in auditorium and gymnasium, where it is introduced mechanically.

orientation, including southeast, which has heretofore been generally accepted as the most desirable. This orientation is being used as the basis of design for other school buildings upon which this office is currently engaged.

Classrooms will receive direct sunlight for an average of five hours a day throughout the school year. During this time the azimuths of the sun are such that light enters the room from behind and to the left of the student until approximately 3 p.m. at which time the sun's rays are normal to the window. Thus, the conditions for maximum and efficient daylight illumination are optimum.

Upon determination of this preferred orientation, it became evident that the most advantageous use of this wealth of light would require control beyond that possible with clear glazed window sash and curtains. To achieve the desired control a special "window wall" was developed which includes the use of directional glass block and sun hoods. Beneath the latter is located a view panel of clear glass.

The height of the glass block and the extension of the hood beyond the walls are such as to exclude uncontrolled direct sunlight except for an average of twenty-three minutes a day throughout the school year and to avoid the necessity of shades requiring manipulation by the occupants of the room. Control is thus automatic.



SECOND FLOOR

EDWARD HUGHES GLIDDEN Jr.

Architect, Baltimore

KEY

1—Classrooms

2—Shops

2A—Forge

3—Library

4—Library Workroom

5—Girls' Dressing Room

6—Boys' Dressing Room

7W—Instructors' Room, Women

7M—Instructors' Room, Men

8—Waiting Room

9—Doctor's Office

10—Vault

11—Principal's Office

12—Conference Room

13—General Office

14—Counselor's Office

15—Girls' Locker Room

16—Business Machine Room

17—Business Room

18—Boys' Locker Room

19—Instrument Storage

20—Food Storage

21—Cafeteria Office

22—Kitchen

23—Dishwashing

24—Cold Storage

25—Music Room

26—Tool Storage

27—Equipment Rooms

28—Cooking Room

29—Laundry

30—Living Room

31—Fitting Room

32—Sewing Room

33—Laboratory

BT—Boys' Toilet

GT—Girls' Toilet

T—Toilet

BSH—Boys' Shower

GSH—Girls' Shower

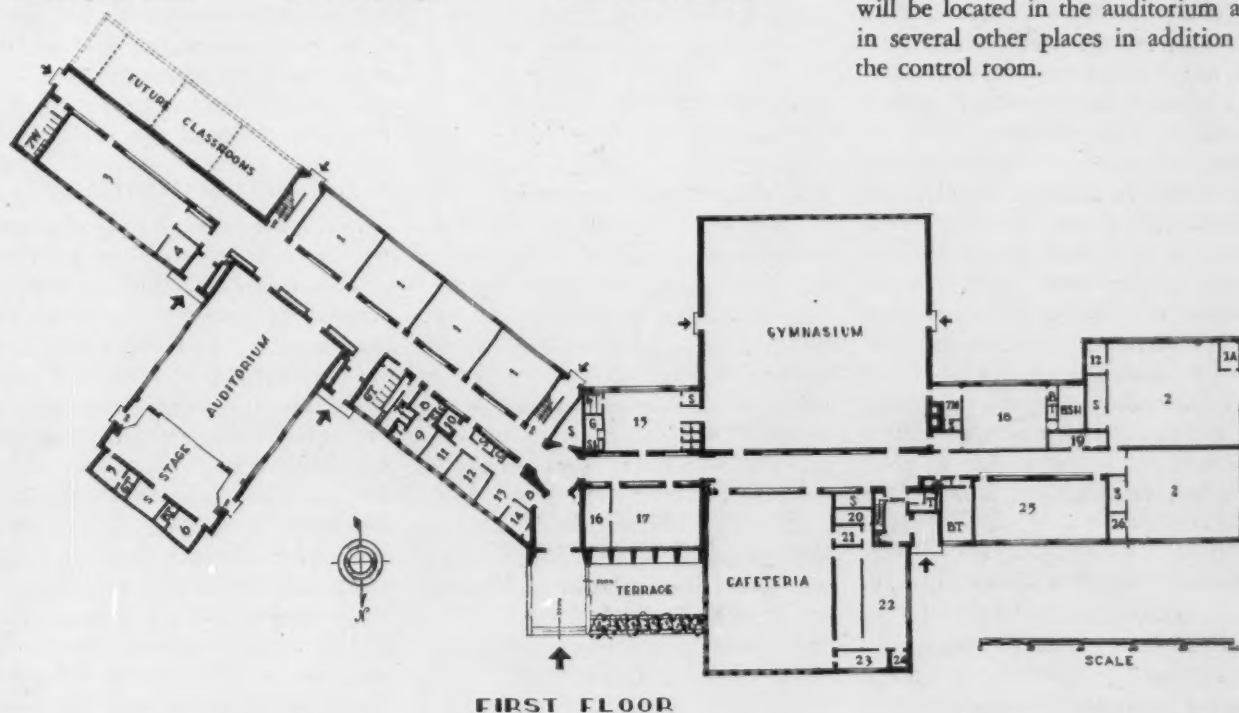
S—Storage

C—Closet

JC—Janitor's Closet

All rooms used for study purposes, but not equipped with the window wall described, are oriented so as to avoid direct sunlight. Such rooms provide for activities in which the visual tasks are not as severe as are those of the academic classrooms.

Numerous rooms are wired to permit the use of audio-visual aids and the entire building is to be equipped with a public address system controlled from the administrative suite. The system will permit two way reception at each station; microphones will be located in the auditorium and in several other places in addition to the control room.



FIRST FLOOR



EXPERTS ADVISE ON *Building*

A. V. OVERN

Professor of Education
University of North Dakota

SCHOOL boards and superintendents are pressed today by the necessity of remodeling existing school facilities or building new structures to care for increasing enrollments of pupils. An opportunity to learn how to avoid some of the possible errors and to achieve the purposes of school building construction was given at a building clinic recently held on the campus of the University of North Dakota. Experts in building design, sanitation, heating, lighting, painting and equipment gave advice to those who were registered at the clinic.

When children are required to attend school, the community should provide for their maximum safety, for the protection of their health and for their instructional needs. School buildings should be expansible to accommodate an increasing population and should have esthetic values. Hurried planning may defeat the accomplishment of important educational purposes because the planners may not have in mind a complete pattern of the community educational aspirations or needs. Hence, functional planning of school buildings on a long time basis is important.

SEPARATE HEATING CIRCUITS

For example, fuel may be saved by using separate heating circuits for auditoriums, gymnasiums and music rooms when these facilities are to be used independently in the evening. Play areas may serve more than one

function. Providing the proper number and size of classrooms to balance the space required in special rooms should save part of the total cost of building.

A change from unilateral lighting to lighting from two or more sides and a skylight in one story buildings is accepted in recent practice. Proper shades should control the heating effect of the sun. The furniture, floors, window and door casings should be light in color to prevent deep shadow contrasts in each pupil's field of vision. This will improve reading efficiency.

LARGER CLASSROOMS

Classrooms may be larger than standard size so as to include activity work when there is adequate lighting. Ceilings may be lowered and construction costs reduced when use is made of controlled artificial lighting. Fluorescent light bulbs, if properly set between the vertical walls of a grid near the ceiling, will prevent the side rays from shining into the eyes of the pupils. The floor, desk tops and ceiling will reflect the light and diffuse it more uniformly throughout the room. Eye comfort results from the absence of glare and sharp shadow contrasts. Desks should be light in color rather than dark brown.

The number of foot-candles of light at the desk top in classrooms should be from 30 up to 70 or more. If a light source gives 70 foot-candles of light when it is new, it may give only

50 foot-candles after it becomes soiled. Direct light is preferred to indirect. Light sources within the field of vision, if too brilliant, may affect the eyes as the headlights of an approaching car do at night when everything else is dark.

When one can see through windows and the wall shadows inside the room are reduced, one has a feeling of being in a larger space. A touch of bright color here and there has the same function as seasoning in food and should be used temperately. Using white paint above the grid on the ceiling for light reflection is good. The paint may be freshened with soap and water every four or five years.

NATIVE MATERIALS PREFERRED

The best school architecture calls for the use of materials that are available in the surrounding geographical region. The Gothic style is simple and economical. The Greek style, also, with its pattern of posts and lintels resting on and extending between them, has beauty and strength. Modern architecture is exciting, refreshing and based on a new knowledge of how to use steel, light metals and glass.

Wood is practical for finishing the inside of classrooms and corridors. The corridor wall of wood may be used as a bulletin board. Thumb tacks may be used freely because a building should be consumed in its use, not preserved. The corridor wall thus may become a part of the village art gallery.

lery. Concrete block and unpainted brick are excellent materials for school building construction and may become a part of good design.

In California and in the Chicago area some newer elementary schools have classrooms extending along one side of a long corridor. Corridors are placed at angles of 90 and 180 degrees from a center so as to provide different wings and play areas for pupils of various ages. The washrooms are inside the classrooms. Each classroom has one that is used by all the children, as in a home.

One plan is to build a corridor 7 feet 6 inches high and a classroom roof 13 feet high next to it, but decreasing to 9 feet in height on the side next to the playground. Light is admitted above the corridor roof as well as from windows on the 9 foot side of the room. Just outside the edge of the 13 foot roof a 6 inch board set a little way out from the edge improves the appearance and reflects light into the upper windows of the classroom.

High schools should have an outside entrance to the auditorium for use of the public. Various shops and laboratories should be so planned as to leave space for pipes under the floor or within the room where they are accessible. Laboratories are best located in shop-type space to provide plenty of room for pipes that need to be changed from time to time. In some Milwaukee buildings the swimming room is surrounded by other warm rooms to keep the moisture in the air above the pool from condensing on the walls.

ROOF ECONOMIES

The most economical roof for a fireproof building is a flat one, slightly inclined, constructed of a concrete slab, under which are placed 4 inches of rock wool, metal lath and plaster. If radiant heat pipes are used, they may be placed in the ceiling just under the rock wool or exposed to view inside the room directly below the plaster.

When pipes are placed inside the room near the ceiling and are connected with a heat source, such as hot air or hot water, some radiation will travel to the floor and be partly absorbed and partly reflected. There will be some conduction, also; but most of the heat transfer will be by the convection air current that is a part of the ventilation of the room.

Soft copper pipes lend themselves nicely to pleasing designs if they are to be exposed near the ceiling. A single pipe placed around the room under the windows will counteract the down draft over the glass surface. This use of pipes for heating is called radiant heating.

The cost of pipes for radiant heating is from 15 to 20 per cent more than that of radiators but the cost of operating a hot water radiant heating system is considerably less than that of operating a plant with radiators. It is cheapest with radiant heating to keep the temperature almost uniform for twenty-four hours of the day and over week ends. Hot water at a maximum temperature of 140° F. at the ceiling is recommended as most economical.

The comfort zone in the best ventilation is in the neighborhood of 70° F. and a relative humidity of 40 per

cent. The best practice is to circulate 10 cubic feet of air per child per minute from the outside and 20 cubic feet of recirculated air in cold weather. As the weather warms up outside, an automatic valve will increase the amount of the outside air used. Skin breathing is important for comfort and depends upon air circulation. When the outside air comes through vents in the ceiling, the children will feel no draft if it is within 8° F. of the air already in the room.

In a large building a single mechanical ventilating system is more economical than are unit ventilators because each classroom unit ventilator has a separate motor to be cared for. However, large separate systems of ventilation for auditoriums and gymnasiums are desirable because they make it possible to use those departments on week ends and at night when the rest of the building is not in use.

MISSISSIPPI VOTES PLANT AID

WILLIAM G. ECKLES

Director of School Building and Transportation
Mississippi Department of Education

THE Mississippi legislature in its last regular session made its first appropriation to aid local school districts in school plant construction. This appropriation was \$3,000,000 and state assistance was limited to \$2000 per classroom to be constructed.

For a school district to receive a grant from this appropriation, its official board is required to file an application with the state building commission. The commission consists of the governor, the speaker of the house of representatives, a member of the house, the chairman of the finance committee of the senate and the chairman of the education committee of the senate.

All appropriations of state funds for the construction of and repairs for Mississippi institutions are administered and supervised by this commission. In order for the commission to consider an application for state assistance, the application must be referred to the state department of education, which makes a survey of the needs of the school district for new plant facilities.

A written report is filed in which the school building needs of the dis-

trict and the adequacy of the school district organization are reported to the commission. Upon consideration of this report, if a definite need is found, the commission makes an allotment to the school district.

School plant needs have mounted during the last eight years because low tax values limited school building budgets and war conditions made it impossible to construct buildings even though they were adequately financed. Applications have been approved by the commission for a total of more than \$2,500,000 of this appropriation.

While the state grant of \$2000 per classroom is a small part of the construction cost, this much state assistance is proving its value as a stimulus to school districts to provide better school plant facilities. It has enabled many districts to provide much more satisfactory classrooms than these districts could have provided without state assistance.

Surveys of all 82 counties in the state show that more than 6000 new classrooms are needed at this time to provide adequate facilities for all of the public schools of the state.

THERE'S A PLACE FOR

IN GENERAL EDUCATION

Statistics

IN GREECE more than 2000 years ago a philosopher stated his sage belief that a democracy could extend only so far as the reach of one man's voice.

It was in the same country in 1946 that an Allied Mission was called upon to observe the voting done by a population numbering more than 7,000,000.¹

The reach of one man's voice may have determined the limits of a democracy in Aristotle's time, but times change. What makes the difference? A number of things could be named, but one of the most important is *statistics*.

WE NEED NEW TOOLS

The old days of living by face-to-face communication are nearly gone. We now have the newspaper and the radio. And with these new mediums has come the necessity for new methods of comprehension, new tools of thought. We think now in terms of nations, hemispheres and the world. We do not think just of our personal problems, but of the problems of all mankind.

This is a large order. It has become possible because modern civilization has learned to use numbers in new ways. From the earliest times, the advance of civilization has been marked by the advance of counting, measuring and the manipulation of quantitative symbols.

We are still advancing *during our own lifetime*. While our automobiles have been acquiring the power of a hundred horses, measuring and counting have also been taking on new power. They have grown into masterful technics by which our complex civilization can be understood, controlled and guided. They have developed into activities which are widespread, essential and, in the hands of experts, dependable.

It is not too much to say that it

¹For a brief overall, nontechnical report see: U. S. Department of State, Report of the Allied Mission to Observe the Greek Elections, Publication 2522, Washington, D. C., Government Printing Office, 1946. Pp. 36.

DOUGLAS E. SCATES

Professor of Education, Duke University

would be impossible for a nation of the size and complexity of the United States to exist and operate without statistics, both the common variety found in records and reports and the modern variety which has resulted from the application of mathematical theory developed mostly within our own lifetime. For statistics, as the leading statisticians know it today, is a far cry from what most people think of as statistics, and the new varieties were developed to meet practical needs, to solve practical problems and to save money in administration. Statistics is a *practical* science, born of practical, everyday demands.

Statistical workers, in much larger numbers than is commonly realized, are performing a wide variety of services in industry, government and education—in fact, wherever large scale planning and operating are called for. These services range from simple, routine record keeping to the development of complex, abstract theories. Statistical work is of all grades.

STATISTICAL ACTIVITIES

Let us briefly review a few of these activities. The most widespread variety is still that of record keeping, and for industry, government and education this is a large operation. Then there are the various censuses, one or another being taken every few years. These old-line statistical activities are not losing ground; they are more widespread and more extensive than ever. They provide foundation material for the guidance of long time policies.

However, the newer types of statistics developed in recent years are the ones which more obviously save money and give quicker results. One significant development is that of the *sample census*. An unheard of thing fifteen years ago, this is now a practical reality, being employed frequently and producing extremely useful information in a

short time and at a very great saving.

Other new developments include *quality control*. This is a procedure by which the statistician can guarantee to the customer products of the quality he expects and, at the same time, save money for the manufacturer. *Operations research*, exploited during the war, enables an administrator to analyze his activities and appraise their effectiveness in quantitative terms. *Market research* has been extended, intensified, broadened and made more important to those business enterprises which take such steps to help ensure their success.

OPINION POLLS POPULAR

Opinion polls have been growing in number and in quality. They are almost fully statistical enterprises and they afford an important index of the currents of public reaction. Applied psychology utilizes many other forms of *measurement*. Air crew selection in the war made aptitude testing famous and saved millions of dollars and thousands of men. Industry makes wide use of both employment tests and placement tests.

Schools use achievement tests and intelligence tests. Clinical psychology utilizes these, and personality tests also. Measurement work extends more widely than ever before throughout government, industry and education. While we know of these things, we sometimes lose sight of the fact that wherever tests are made or used statistical training of some sort enters in.

What are the services which a statistician can offer? Very simply, the expert statistician aids in the planning of data gathering so that when the data are in hand one can tell what they mean. He may also know of methods which will save large sums of money. He assists in the analyzing of these data. He devises internal and external checks so that he can tell

within what limits the data actually are what they seem to be. He aids in further interpreting and reporting the findings.

The foregoing statements are like those made in describing the work of a physician by saying that he diagnoses and prescribes, or of a surgeon that he incises, excises and sutures. But behind these processes are the knowledge, the judgment and the skill which come with long years of training and experience. So it is with the modern experts in data gathering and analysis. The competent professional worker, whether in medicine, law, teaching or statistics, knows the many complicating factors of a situation and their indications; he knows the probable cause and effect sequences in his field; he knows what to do to avoid undesired complications; he has a large background of resources on which he can draw to obtain the results which are sought.

The statement we often hear, "There are lies, damned lies and statistics," is true in fact and in implication. Statistics often mislead even the person who gathers them—especially the untrained, unwary, unspecialized, even though conscientious, worker. This is why the fully trained, expert statistician is in demand today.

STATISTICIANS TAKEN TO GREECE

Why did the members of the Allied Mission take expert statisticians with them to Greece? It was not just to count the votes. Others could do that. But the mission called on the statisticians to tell it whether the registers of eligible voters were reasonably authentic; how many people should vote (in spite of the registers); whether the results of the vote as counted came out the way they should, and whether certain charges and countercharges were factually defensible. No, the statisticians were not expressing political opinions; they had ways of knowing the answers.

The simple truth is that the Mission to Greece took along statisticians because, in this modern complex world, without the help of trained statisticians one frequently does not know what he is doing. One may get figures but he cannot tell what these figures mean. He is at the mercy of all the manifold forces which, purposefully or unwittingly, corrupt his data.

Why do school administrators care about these things? There are several reasons why they must. In the first place, statistics is an expanding voca-

A practical course in data gathering and simple interpretation will help young people to face social problems in quantitative, factual terms, rather than on the basis of emotion or gossip. Wherever tests are used, statistical training enters in. Problems solved, money saved in school administration.

tional field, permeating our whole society, ranging from clerical to top level administrative and theoretical workers. In the second place, statistical methods of thought are an important part of general education, of getting students ready to play their part as citizens, entirely apart from their vocations. For there is nothing which will sharpen their thinking and at the same time give them an understanding of social content so well as the knowledge of statistics. It is strictly a social form of mathematics, with as much social content predominating as a teacher may care to give.

SCHOOLMEN MUST KNOW

In the third place, school administrators frequently employ statistical workers. It is important that they themselves understand the services which modern statisticians can offer; that they recognize there are times when experts, or mathematical statisticians, need to be called upon, perhaps to consult with the schools' regular research bureaus, and, finally, that most statistical work is not plain clerical work which can be entrusted to anybody merely because he is conscientious.

As to the high school curriculum, what should be done? There are different needs in a statistical working force, and these must be recognized sooner or later. But in the high school a common foundation can be laid for all of them. First comes the training for the general citizen, to prepare him to face social problems in quantitative factual terms, not upon the basis of emotion and unsupported rumor or gossip. A practical course in data gathering and simple interpretation is recommended as the training appropriate to this end.²

Next in importance is the preparation of the large number of future administrators, who should have at least enough acquaintance with statistics and what it can do, to call in a statis-

tician when it is appropriate to do so. The services of clerical and specialized workers will be needed regularly in any large undertaking, but the mathematical consulting statistician can be a great aid at many times.

The statistical education of these future administrative leaders should be begun in high school, for many of them will not continue their education.

There are left the more highly specialized statisticians. It is not necessary to begin their education in high school, but it is highly desirable to do so. Why? Because the present demand for statisticians so greatly exceeds the supply³ that it is important to begin recruiting on the high school level.

Furthermore, statistics is such interesting work for those with keen minds that this training in high school may convince many students that they should go on to college in order to get further training. Statistical courses undoubtedly will catch the interest of and challenge many a student who has that happy combination of abstract abilities and practical interests which few other studies make use of.

MODERN STATISTICS A FORCE

There is no reason to expect the world of ideas to stand still, and it has not. Modern statistics is a far cry from the "political arithmetic" of the earlier centuries. It has more thrill. It has more power packed into it. It has more service to render. It has more to offer tomorrow's citizens, executives and technical experts.

Our high schools owe it to today's children to give them the preparation for those needs in tomorrow's world which are evident today. And acquaintance with statistics is a need which has become increasingly pressing.

²Scates, D. E.: Statistics—the Mathematics for Social Problems, the Mathematics Teacher 36:68 (February) 1943.

³"The shortage of training facilities for mathematical and especially for applied statisticians is critical. There has been an unprecedented growth of interest in the use of statistical methods during the last ten years which has caught the American educational system unprepared." National Research Council, Committee on Applied Mathematical Statistics. See Wilks, S. S.: Crisis in Statistical Personnel, the American Statistician 1:8 (October) 1947.

MAKING HISTORY MEANINGFUL

Through mock UN meetings and assistance with the Friendship Train, students gained an international point of view — a requisite for good citizenship

Z. H. DORLAND

Principal, Streator Township High School
Streator, Ill.

EVERY effort is used to make the course in American history in the Streator Township High School a living reality, so as to develop in students an understanding and appreciation of past and present events and to make of them active, useful citizens.

As a basic requirement, students are expected to learn what is essential for living in the world of today. Less time, for example, is spent on early discovery and exploration, except as they influence modern society, and more is spent on the study of certain documents, including the Declaration of Independence and the Constitution of the United States. In connection with the latter, a mock constitutional convention is held so as to give students the feel of history as well as acquaint them with the facts.

THE WORLD WE LIVE IN

As an aid to living successfully in the world of today, it is essential that boys and girls know something of the development of transportation, communication and science and of the life in other countries. With this in mind, we started last fall a study of international relations.

An International Relations Club was organized under the sponsorship of Dorothy Bash, head of the social science department. Miss Bash attended the United Nations Conference at Lake Success last summer. In September she was relieved of her class work to return to New York to attend the General Assembly of the UN. Through her efforts the students are developing a wholesome attitude toward the problems of international relations and world peace.

The purpose of the International Relations Club is threefold:

1. To analyze current problems, including the United Nations' charter and its application. This requires a

background knowledge of the various countries.

2. To interest school and community in international affairs.

3. To serve others, both abroad and at home, as an essential to good American citizenship.

Each member of the club last fall chose one country for the year, to study its geography, culture, economic problems, political developments, and so on. He read current publications, saw films and corresponded with high school students from that country. He considered current topics from that country's point of view as presented on radio or other programs and in magazine articles.

Each Friday in the classroom a current topic is discussed, having been announced the week previously. Topics are taken mostly from those under consideration at Lake Success or Flushing Meadows. One student acts as chairman, except for the last twenty minutes of the period, when the instructor leads the discussion on facts



A carload of grain for Europe.

as they relate to the charter of the United Nations.

At the monthly meetings of the International Relations Club, an attempt is made to give students the feel of the UN by holding mock meetings of its various branches. On December 1, 1947, for example, the security council considered the Greek problem. Insofar as possible, an attempt is made to

create the atmosphere of Lake Success by including the press (photographs), radio (student recording), secretariat, interpreters, stenographers, and so on. Future mock sessions will include those of the atomic energy commission, the social and economic council, the trusteeship council, and others.

The work described is all beyond the basic requirements of the course in American history.

Since the purpose of the club is service, members last fall expressed the desire to find an international Christmas project. On November 14, during current events discussion, one student mentioned that the Friendship Train (Southwest Special) was going to pass through Streator. One of the members of the International Relations Club at once expressed the sentiments of the majority when she said that since one purpose of the club was service, something should be done about this. The superintendent, when consulted, favored the idea.

FOOD FOR FRIENDSHIP TRAIN

Three days later, the steering committee, composed of club officers, the program chairman and 20 members, prepared resolutions asking the student council for permission to take charge of food collections for the Friendship Train in the high school. The student council gave its approval and the club members went before the school with their prepared talks, one being given by a girl who was a "member of the U. S. delegation." She had been studying the Marshall plan and the needs of Europe.

Other club members spoke before various civic groups, such as the Rotarians, the Kiwanians and church societies. They solicited contributions in business, residential and rural areas. Nearby communities, such as McNabb, Ransom, Wenona and Henry, gave their aid. In three and a half days the boys and girls collected \$2110, enough for one carload of grain.

In doing this, they felt they had accomplished several things: (1) they had helped in feeding a few of the hungry people of Europe; (2) they had aided their government in carrying out its foreign policy; (3) they had made the community conscious of the need for good international relations. And this project was only one part of a course in which students are learning about present day life with all its problems as well as the facts of earlier history.

Chalk Dust

OUR FAVORITE AUTHOR

WHEN the feature page, "Among the Authors," first appeared in *The NATION'S SCHOOLS* (see front advertising section) it seemed to be just one more praiseworthy example of the informal homey relationships which characterize our favorite professional magazine. But as month after weary month has dribbled by, we are increasingly irritated with the failure of the editor to make the page realistic.

What we really need is some life stories about the average school administrator and how he stumbled to where he is and what happened to him in the stumbling. In this way, others may be encouraged to believe that some day they, too, will win fame by having an article published in *The NATION'S SCHOOLS*.

In an attempt to give more reality and umph to this page of authors, we are submitting herewith (with cabinet photograph) extracts from our own career which is much more typical of the hard facts of life as a school administrator than are those we have been talking about.

The subject of this essay is the author of that devastatingly humorous page known as "Chalk Dust." He attended rural high school for five years and after that various colleges, briefly. Eventually, his struggles got him a diploma of sorts "summa minus cum laude." With the help of numerous teachers' agencies and the fact that his father held a position in political circles back in Cattaraugus County, our author was persuaded to accept a position as teacher of civics, physics, spelling, history, biology, remedial reading and coach of the football team. It is from this variegated background that he draws his material.

For some reason not readily understandable, he coached the football team into a county championship and immediately became superintendent of schools by public acclamation. After brief service in Sugartown (one year), he served successively in Great Valley (one year), Little Valley (one year), Water Valley (six months) and various other important valleys for less definite periods.

At length, seeking greater opportunities for usefulness (and more money), the subject of our profile became superintendent in the city of Cheeseburger, due largely to a division of opinion among the school board members of that city.

In 1929 due to circumstances beyond his control, our hero's salary dropped rapidly (remember!!) and



has never fully recovered. Not being further interested in money, he became professor of education in a college.

He has been, at various times, a member of all service clubs, fire departments, legions, fraternities, church choirs, community sings, mothers' clubs (ex-officio) and similar professional societies. His hobbies are travel and repair of secondhand furniture.

« »

VALENTINES

This is the month of sneeze and snows, of chills and spills and frozen toes, when all of education's woes pile up with every wind that blows. This is the month of holidays, wherein we serve the nation's shrine, this month with all his pleasant ways we welcome good St. Valentine.



So I would send a billet-doux with heartfelt admiration to those who guide me in my work, the Board of Education — the folks who plan and puzzle (ofttimes into the night), who get much blame when things go wrong and slight acclaim when right. Ye are Keepers of the Future and you guard the Present, too. Be strong and steadfast in your course; there's work ahead to do.

Here's a valentine for Tilly, who teaches second grade, who meets each puzzled youngster with courage undismayed. Her forty kids are noisy to the point of aspirin but she tackles forty problems with a sympathetic grin. You're a joy and comfort, Tilly, throughout the weary day, as you truly render service which no wage can ever pay.

And Marian, the secretary, always on the job, who can soothe an angry mamma or quell a raging mob, with poise and equilibrium she picks up where I've slipped and makes a thing of beauty from a half-baked manuscript. To Marian—a valentine! I wish that you could know the work and grief you save me, the hours of toil and woe.

So to Board of Education, to a gosh-swell faculty, to the members of the office staff who work untiringly, to you and each of you I send a valentine that's true: For what you mean and do and are—I love you, 'deed I do!

Legislature violated constitutional requirements for school-aid distribution, but Michigan supreme court finds itself unable to compel lawmakers to appropriate funds to make up deficiency



WHO GETS STATE AID?

HARRY N. ROSENFELD

Assistant to the Federal
Security Administrator

A DECISION of the Michigan supreme court, handed down December 3, 1947, is another landmark in an intensive fifteen year fight for state aid; it clearly will precipitate some new battles on school legislation in Michigan's 1948 legislative session.

Under a sales tax constitutional amendment adopted by the people of Michigan in 1946, two sources of state school aid were set up, to go "to school districts." One is a fixed and automatic .05 per cent of the revenues of the state sales tax. The other is a requirement for an annual appropriation from general funds of not less than a sum equal to the ratio of the sales tax receipts to the legislative appropriations of the previous year.

The school appropriation act of 1947, which was enacted under the terms of this constitutional amendment, appropriated approximately \$51,700,000 from the general funds "to school districts." This sum is the total amount required to be appropriated from the general fund. However, the *method of distribution* of this appropriation was in dispute.

SINGLE SCHOOL DISTRICT

The appropriation act set up a single school district composed of the entire state, with the state superintendent as its executive officer and the various existing state boards (state board of education, state vocational education board and the two retirement fund boards) as its administrative boards. This single school district was set up *only for the purpose of the appropriation act* and did not affect or supersede other statutory authority.

In directing the entire appropriation to this specially created single statewide school district, the legislature also specifically earmarked some \$6,800,000 out of the total appropriation for vocational education, for retirement purposes and for the state schools for the blind and for the deaf.

Suit was brought against the state superintendent of public instruction by the boards of education of Detroit and six other cities and by the Detroit Teachers' Association and the Michigan Federation of Teachers. (The Michigan Education Association supported the sales tax amendment but did not participate in this test case.) They contested the constitutionality of the act on the ground that although the \$51,700,000 appropriated was in conformity with the constitutional minimum, the diversion of \$6,800,000 attempted to be made for vocational education, retirement funds and the schools for the deaf and blind was improper and unconstitutional. They argued that the total sum of \$51,700,000 should have been made available directly to the various school districts and that the legislature did not have power to create a statewide school district.¹

The court sustained the constitutionality of the appropriation act. It agreed with the complaining school boards and teachers' associations as to the impropriety of the single school district but found itself unable to compel the legislature to appropriate additional funds. A strong, partially dissenting opinion felt that a single school district was legal and that, therefore, no questions could be raised against the legislative action.

The court ruled that the single statewide school district was illegal within the meaning of the revenue provisions of the constitutional amendment. The purpose of that amendment was to assist local school districts, said the court, and not to maintain different state institutions or to finance functions directly assumed by the state.

Appropriations for vocational education, retirement funds and the state schools for the blind and deaf are not

grants to school districts, nor is the state school district created by the appropriation act a "school district" within the meaning of the constitutional amendment.

SPECIAL APPROPRIATIONS

However, continued the court, it does not follow that the reserved appropriations are void. The \$6,800,000 specifically appropriated for vocational education, retirement and the schools for the blind and deaf were valid and legal appropriations by the legislature out of general funds. Having been made for specific purposes, they are available only for those purposes and not for distribution to "school districts."

The legal effect of the statute is that the legislature did not appropriate to "school districts" out of the general funds the full sum of \$51,700,000 required by the constitution. But the court "may not direct or control legislative action. In consequence, whether the deficiency is made up by a further appropriation rests wholly with the legislature."

Although the court could and did rule that the legislature's attempt to set up a single statewide school district was illegal, and although it could and did find that the legislature failed to appropriate to school districts the full amount required by the constitution, it said it could not direct the legislature to appropriate the amount of the deficiency. It told the complainants that their only remedy lay with the legislature itself.

SOME UNUSUAL FACETS

There are some unusual facets in this important Michigan case. The creation of a single statewide school district for these purposes of state aid is rather novel. But in one form or another, other state courts have dealt with similar questions of distributing state aid funds.

The Nebraska constitution, for example, provided that the permanent

¹Board of Education of Detroit et al. v. Elliot, Sup. Ct. of Mich., December 1947.

school funds were to be "exclusively applied" for common schools and were to be equitably distributed among school districts. Under this provision, the court ruled unconstitutional a statute which directed payment out of state school funds of tuition for children of service people who were stationed in the state; this was not equitable distribution among districts.²

Washington's constitution also limited the common school fund to the support of common schools. The state supreme court ruled that an attempted appropriation from this fund to the state board for vocational education for vocational rehabilitation was an unconstitutional diversion of the funds for purposes other than support of common schools.³

And Missouri's court has refused to compel the state superintendent to give priority to state aid for the education of orphan children where the state public school fund was insufficient to pay the full aids to school districts.⁴

OTHER MICHIGAN CASES

Whatever may be their relevance to the present situation, two cases out of past Michigan court judicial history on state aid are interesting for comparative purposes. In the 1920's Michigan enacted a statute establishing a plan of distributing state aid which was declared unconstitutional.⁵ Thereafter the legislature set up a "supplemental" fund to be apportioned as required by the constitution.

In the 1930's, the supreme court of Michigan had before it a state aid distribution statute (which was later repealed). The court required the state superintendent to apportion state school funds among the school districts even where there was a deficiency of funds available.⁶

The opinion in the current case is an example of the practical effect of the American constitutional doctrine of checks and balances. Although the court found that the legislature had violated the constitutional requirements, corrective legislative action could not be compelled by mandate.

²Taylor v. School District of Lincoln, 128 Neb. 437, 259 NW 168 (1935).

³State ex rel State Board for Vocational Education v. Yelle, 199 Wash. 312, 91 Pac. (2) 573 (1939).

⁴State ex rel School District v. Lee, 83 SW (2) 87 (Mo. 1935).

⁵Board of Education of Detroit v. Fuller, 242 Mich. 186, 218 NW 764 (1928).

⁶Board of Education of Iron Mountain v. Voelker, 271 Mich. 207, 259 NW 891 (1935).

Sweeping Changes Recommended

By President's Commission on Higher Education

RECOGNIZING that "America's strength at home and abroad in the years ahead will be determined in large measure by the quality and the effectiveness of the education it provides for its citizens," the President's Commission on Higher Education* has recommended sweeping changes in our colleges and universities. These changes are both in the numbers of students whom our institutions should serve and in the kinds and quality of the whole process of learning and experience.

The present crisis in national and world affairs creates a new demand not only for more individuals with technical and professional competence, but also for those who "have a fuller realization of democracy in every phase of living, international understanding, creative imagination and intelligence trained to the solution of social problems and the administration of public affairs." In actual numbers, the commission proposes that enrollment in our colleges and universities should be increased from the present 2,300,000 students to 4,600,000 by the year 1960.

However, even such an increase in our student body will not meet the imperative needs of the present and the future unless it is paralleled by drastic changes in the colleges and universities themselves. "Too often the college graduate is 'educated' in that he has acquired competence in some particular occupation, yet falls short of that human wholeness and civic conscience which the cooperative activities of citizenship require."

GOALS OF LEARNING

Among the basic outcomes of college learning and experience which the commission believes essential are: (1) to enable its students to develop, for the regulation of their own personal and civic lives, a code of behavior based on ethical principles consistent with democratic ideals; (2) to participate actively as informed and responsible citizens in solving the so-

cial, economic and political problems of the community, the state and the nation, and (3) to recognize the interdependence of the different peoples of the world and their personal responsibility for fostering international understanding and peace.

Higher education also should make it possible for students (1) to appreciate the implications of scientific discoveries for human welfare; (2) to attain a satisfactory emotional and social adjustment; (3) to improve their own health and cooperate intelligently in solving community health problems; (4) to understand and employ the arts and to participate in creative expression; to acquire the knowledge and attitudes basic to a satisfying family life, and (5) to acquire and use the skills and attitudes involved in critical and constructive thinking.

IMPROVEMENT AT ALL LEVELS

The commission recognizes that to achieve these quantitative and qualitative ends the college cannot act alone. The educational process must be improved all along the line, and high school education should be provided for all normal youths.

This first volume of the report cites data showing the present inequality of educational opportunity resulting from differences in economic status and from racial and religious discrimination. To overcome the first, the commission recommends making education through the fourteenth grade as available and as free as high school education is now. In addition to providing free public education through the fourteenth grade, institutions are urged to reduce, at least to the 1939 level, tuition and other fees above the fourteenth grade. Private colleges and universities are warned that any further increase in their tuition and other student fees will tend to limit their students to families of the upper income brackets.

To remove, as completely as possible, the economic factor as a basis of selection, the commission recommends a program of scholarships to assist students who would not otherwise be able to go to college. It also

*Appointed a year and a half ago by President Truman, the commission consists of 28 civic and educational leaders outstanding in their fields.

recommends the inauguration of an extensive program of national fellowships for the ablest graduate and professional students. The details of the scholarships and fellowship programs are described in Volume II of the commission's report.

CONDEMNS SEGREGATION

The granting of economic aid will not be enough, however. There must be an end also to discrimination. "The opportunity for education at all levels must be equally available to each individual without regard to race, creed, sex or national origin, if democracy is to be a living reality." The commission strongly condemns segregation and recommends that all mandatory segregation laws or constitutional provisions be repealed.

In its approach to this problem, however, the commission is realistic. It frankly recognizes that race segregation runs deep within the cultural pattern and that it can be eliminated only by evolution, not by law or directives. While insisting that federal funds shall be equitably distributed among Negro and white schools and colleges,

the commission does not recommend, as did the President's Commission on Civil Rights, the withholding of federal monies unless assurance is given by the state that these will not be used to perpetuate segregated schools. In fact, as an interim measure, it is proposed to strengthen Negro colleges and universities.

Recognizing the difficulties in providing physical facilities for such an increase in enrollment as it proposes, the commission appraises various alternatives. Although private colleges and universities have rendered and are still rendering a significant service to the nation, it does not appear probable that they will be able to expand their present enrollment of 900,000. The expansion, in the judgment of the commission, will be largely in the field of public education, but many tax-supported institutions have already reached a size which may not warrant further increase. The major solution, then, lies in the development of what the commission terms "community colleges."

These institutions, comparable in organization to our present junior col-

leges, should usually be developed as an extension of the existing public school system upward through the thirteenth and fourteenth grades. It is suggested that smaller communities unite to form regional community colleges. Although locally controlled, it is imperative that they be planned to fit into a carefully planned and comprehensive statewide program of higher education.

The commission frankly faces the fact that the extensive development of community colleges, offering both terminal and regular college courses, will force some of the smaller four year colleges out of business and many others to shift their major area of service to the upper two years of college and graduate professional courses.

ADULT POPULATION IS SERVED

One of the important fields of service of the community colleges, as well as established institutions, is to the adult population. The commission criticizes colleges and universities for their failure "to recognize adult education as their potentially greatest service to democratic society."

The radical character of the changes in higher education proposed by the commission, their magnitude and the pressure of time all imply that the federal government must supplement local, state and private sources of income. "The federal government assumes responsibility for supplementing local and state efforts in military defense against the nation's enemies without; surely it may as justifiably assume responsibility for supplementing local and state efforts against educational deficiencies and inequalities that are democracy's enemies within. We may be sure our democracy will not survive unless American schools and colleges are given the means for improvement and expansion. This is a primary call upon the nation's resources. We dare not disregard it."

With candor, clarity and vision, the commission has appraised our national needs and has evaluated our present system of higher education in meeting these needs. It has charted the changes that are essential, not as soothsayers, but in terms of facts and basic recommendations. Although concerned largely with higher education, the report has significant implications for all education.—HELEN C. BROWN, *Washington Correspondent of The NATION'S SCHOOLS.*



Acme

HUNDREDS of small towns in the United States are unable to support libraries but that does not limit the reading habits of their citizens. The bookmobile, a library on wheels, brings them a steady supply of books. The bookmobile operated by Prince

Georges County in Maryland is typical of others operated throughout the country. Small towns and rural communities are visited on regular schedules. In Prince Georges County the bookmobile makes 22 stops a week and visits each place once a month.

Are Teachers Prepared For the Battle of Good Will?

JUDSON T. LANDIS

Associate Professor, Sociology and Anthropology
Michigan State College, East Lansing

THE Springfield plan has received publicity as a sensible way to lessen racial, nationality and religious prejudices. At Brighton Beach, N. Y., Minneapolis, and Tucson, Ariz., other experiments are being carried out by the schools and interested organizations which are attempting to bring about better understanding among races and nationalities.

This is encouraging to those who believe in establishing the four freedoms in the classrooms of the nation. However, let us not become too optimistic. How far can these few experiments conducted by socially conscious educators and community leaders go toward bringing about truly democratic intercultural relations in the United States? Programs for this purpose require careful planning and qualified leadership.

Since the burden of setting up programs in intercultural relations will fall upon the public schools, it is imperative that teacher training institutions give us teachers who are qualified to teach racial and religious tolerance. Just what are these institutions doing to prepare prospective teachers to handle the subject of intercultural relations in the schools? What programs have they set up on their campuses to reduce racial, nationality and religious snobbery and prejudice?

To get some idea as to what teacher training institutions are doing in intercultural education, an investigation was made of the annual bulletins (1944-45) of the 162 schools recognized by the American Association of Teachers Colleges. Of these 162 leading teacher training institutions, only 37 listed courses in intercultural relations.

Replies to a questionnaire sent to each of these 37 revealed that half of these classes have less than 20 students enrolled. In many of the schools the course in intercultural education is given once a year or once

in two years. In view of this picture of the opportunities for education in this subject in teachers' colleges, there is some doubt as to whether students leaving teacher training institutions are properly prepared to initiate programs directed at eliminating race and nationality prejudices.

It is recognized that although schools do not give separate courses in race and nationality problems, often some material along these lines is included in sociology and social problems courses. However, it is doubtful whether the short time devoted to intercultural discussions in these courses would be sufficient to give students the background necessary for taking places of leadership in community programs in intercultural relations.

The heads of the departments teaching race relations were asked, "Do you feel that there is a special need for such a course in a teachers' college?" All but one indicated there was a special need for such a course.

From a Colorado college: "Teachers frequently have minority groups to deal with, and they need to deal with them intelligently and sympathetically. To do so they should have as complete a knowledge as possible in this field."

From Alabama: "Here in the South there is plenty of room for improvement in race attitudes and viewpoints. A course in intercultural relations helps to eliminate some of the age old prejudices and stereotyped opinions handed down since the Civil War."

The offering of a course in race relations as a separate study in teachers' colleges is a recent development. Although schools now offering it feel that there is a definite need for it, the responses to the questionnaire do not indicate that there will be a rapid increase in the offering. The questionnaires returned reveal that approximately one half of the colleges giving

courses in race relations have introduced them since 1940, that six more plan to offer a course in the near future, but that the remainder have no plans to give work in this area.

An examination of the available textbooks on intercultural relations reveals that there are few and these few are inferior when compared with textbooks in other fields. There is a need for the writing of more stimulating texts in this field. Much of the best information on intercultural relations is at present scattered in research publications, psychology, sociology and social problems texts. All of this information should be gathered into texts for courses in intercultural relations.

In addition to this, materials should be prepared for use in the elementary and secondary schools. Some Chicago teachers have put together material for three booklets which they use in the first eight grades. These books are used as a part of the social science work. They stress the building of a positive attitude toward racial groups.

The white child becomes familiar with the names of Negro leaders and the contributions they have made to American life. The first grader learns that Chicago was founded by a Negro. After studying the life of Marian Anderson, pupils hear recordings of her music. Boys in the upper grades learn of the scientific achievements of George Washington Carver and other Negro leaders in science.

If America wishes to improve its intercultural relations, truly democratic principles must be developed in the classroom.

Teacher training institutions must develop courses which will provide future teachers the proper education in intercultural relations.

The present teacher training program in intercultural relations reveals no special plans for improvement in the near future.

Text materials are inadequate on the grade school, high school and college levels.

All students in colleges should receive special training in intercultural relations.

Vital programs in intercultural relations must be developed in our schools from the first grade through the college level.

Record Attendance for A.A.S.A.

New Members Join Trek to Atlantic City. More Than 400 Special Meetings Scheduled. Exhibits and Music Featured. Willard E. Goslin, Superintendent at Minneapolis, President-Elect.

ALL roads will lead to Atlantic City, N.J., from February 21 to 26 when the American Association of School Administrators holds its annual convention. A record attendance is expected. On December 29, a total of 1114 new members had been enrolled in the A.A.S.A.

Among the prominent speakers who will address the convention are: General Omar Nelson Bradley; Pearl Buck; Lyman Bryson; Eva Carmichael, exchange teacher from England, now teaching at Anderson, S.C.; D. J. Rose, president of the National Council of State School Boards Associations; James Lee Ellenwood, secretary of the New York State executive committee of the Y.M.C.A.; Oscar R. Ewing, federal security administrator; Erwin D. Canham, editor of the *Christian Science Monitor*; Gerald Wendt, editorial director of *Science Illustrated* and former editor of *Time*; Congressman Walter Judd of Minnesota; T. V. Smith of the University of Chicago, and H. Roe Bartle, chief executive, Kansas City area council of the Boy Scouts of America.

Rotary and Kiwanis

A hundred or more breakfasts, luncheons, teas and dinners and 300 or so meetings of special groups have been scheduled. The National Schoolmasters Rotary Club luncheon and the National Schoolmasters Kiwanis Club luncheon will be held Wednesday, February 25.

State breakfasts have been planned for Tuesday, February 24, by Georgia, Illinois, Indiana, Kansas, Missouri, Ohio, Oklahoma, Pennsylvania and Utah.

College Dinners

Several college dinners have been arranged for Tuesday, February 24, including those of Boston University; Harvard University; New York University; Syracuse University; Teachers College, Columbia University, and West Chester State Teachers College.

One of the highlights of the special entertainment for the convention will be a musical program by Fred Waring's Pennsylvanians, to be presented by the Associated Exhibitors Wednesday

evening, February 25. At the Sunday evening general session, the Westinghouse Male Chorus will be heard. For the Sunday vesper service, the New Jersey State Teachers College Choir of Montclair, N.J., will sing.

Of special interest to those who have building programs in process will be the exhibit of plans, sketches and models of school buildings and equipment sponsored by the 1949



Willard E. Goslin
President-Elect, A.A.S.A.

The newly elected president of the American Association of School Administrators is Willard E. Goslin, superintendent of Minneapolis schools since 1944. Announcement of the election was made by the board of tellers January 10. Superintendent Goslin has been a member of the A.A.S.A. advisory council, 1941-44; chairman of the 1945 yearbook commission, and chairman of the planning committee which prepared the A.A.S.A. platform and presented plans at the 1947 convention for the extension of association services. He is president of the National Schoolmasters Rotary Club.

Mr. Goslin has a B.S. in education from Northeast Missouri State Teachers College at Kirksville, Mo., and an A.M. from the University of Missouri. Before going to Minneapolis he was superintendent of schools at Slater, Mo., 1929-30, and at Webster Groves, Mo., from 1930 to 1944. He is a member of the editorial board of *The NATION'S SCHOOLS*.

Yearbook Commission. Almost all states are to be represented, including rural as well as urban communities. Assistant Superintendent John W. Lewis of Baltimore is chairman of the exhibit committee.

Commercial exhibits will be numerous and significant and will provide valuable information on a great variety of products ranging in size from lead pencils to school buses. As has been the custom of other years, a committee of more than 200 superintendents will appraise the exhibits and make suggestions for future improvements.

Afternoon discussions will be devoted to the practical aspects of improving the school program. Some 60 allied organizations and groups are also conducting programs.

Floyd A. Potter, A.A.S.A. Housing Bureau, 16 Central Pier, Atlantic City, N.J., is in charge of reservations.

Flying Schoolmasters

En route to the convention, 200 "Flying Schoolmasters" from the West, Southwest and Midwest will study American business and industry in three of the country's important industrial and commercial cities. They will assemble in Chicago February 16. Two days later they will fly to Detroit, and on to New York City, where they will visit the United Nations headquarters.

The tour is described as an attempt on the part of education to catch up to an air and atomic age. The field study is sponsored jointly by Michigan State College and Air-Age Education Research. Its purpose is to acquaint administrators with the origin, growth and status of America's business.

E.P.A. Plans Press Conference

When the Educational Press Association of America convenes Tuesday, February 24, at Atlantic City, it will be embarking on its second half century as a continuous organization. The programs will take place at the Ambassador Hotel, starting with three simultaneous discussions in the morning dealing with various aspects of editorial and business management. Consultants for these three groups will speak briefly at a general morning session, to be followed by a business meeting and luncheon program.

Inaugurated a year ago, a press conference will again be sponsored in the afternoon. Representatives of periodicals and newspapers will have an

opportunity to ask questions of some of the convention speakers and of officers of various educational groups. It is expected that universal military training, UNESCO, proposed federal grants, postal rates and Communism will be some of the principal topics of discussion.

Plans for the survey of educational journalism will be reviewed at the business meeting, and announcement will be made of regional workshops with which the E.P.A. will be identified this spring.

Speakers at the luncheon will discuss the educational implications of the present international situation.

N.S.S.E. to Discuss Yearbooks

The National Society for the Study of Education is planning two programs. The yearbook on reading will be presented Saturday, February 21, at 8 p.m. The discussion of the yearbook on juvenile delinquency will take place the afternoon of February 23 or 24. Three yearbooks are in prep-

aration: for 1949, "Audio-Visual Instructional Materials" and "Reading in the Elementary School"; for 1950, "The Education of Exceptional Children" and "The Improvement of Instruction."

Plan Public Relations Clinic

A public relations clinic will highlight the annual meeting of the national School Public Relations Association at Haddon Hall, February 23. The all day session, beginning at 10:30 a.m., will include a luncheon and movie and will terminate with the clinic in the evening.

Speakers include Raymond T. Rich, public relations consultant, New York City; Edward J. Brown of the *Hartford Courant*, and Edgar L. Morphet, Florida State Department of Education.

Phi Delta Kappa

The annual luncheon for Phi Delta Kappans is scheduled for Tuesday, February 24, at the Traymore Hotel. The hours are from 12 noon to 2 p.m.

Condemns School Health Bill

National Council of Chief State School Officers Insists That Federal Funds for School Health Services Should Be Grants-in-Aid to State Education Agencies. John Bosshart New President.

CHIEF state school officers from 35 states and the Territory of Hawaii met in Los Angeles for their annual conference, December 12 to 14, 1947.

The new president of the National Council of Chief State School Officers is John H. Bosshart, commissioner of education, New Jersey. Succeeding him in the vice presidency is Clyde A. Erwin, state superintendent of public instruction, North Carolina. Ralph B. Jones, commissioner of education, Arkansas, was reelected secretary. Members of the executive committee for the coming year are: John Hines, South Dakota; Mildred Bray, Nevada; Edgar Fuller, New Hampshire; Burgin Dossett, Tennessee; and Eugene B. Elliott, Michigan.



John H. Bosshart

The council heard John W. Studebaker describe in detail plans of the U.S. Office of Education for a comprehensive, nationwide program of

education to promote "Zeal for American Democracy." The plan was approved in principle as offering to the public schools of America a means of combating the insidious infiltration of Communism and of inculcating proper appreciation of the heritage of the American Democracy.

Much consideration was given to plans on the part of the council to place before the Congress and federal administrative agencies specific recommendations on sound educational administration at the national level. In this connection, the conference reaffirmed its previous stand of opposition to piecemeal, specialized federal aid to limited phases of education administered by federal noneducational agencies and came out strongly for a general aid program with sufficient funds to enable each state to meet its educational needs in its own way and according to its own legal and constitutional provisions.

Coming in for severe castigation were some of the plans now being pushed in Washington for a national school health bill which would give

noneducational federal agencies control of the program's administration. Said the council:

"If federal aid for health and physical education is to be provided by the Congress, it is the belief of the National Council of Chief State School Officers that the following basic principles should be observed:

"1. Good health and physical well-being are worthy educational objectives, the widespread attainment of which will require school health services and instruction in health and physical education for pupils and their parents.

"2. Instruction in health and physical education is clearly a responsibility of the school.

"3. Rather than being a separate entity, health instruction should be considered as an integral part of the total instructional program and an integral part of the total health program of the school and the community.

"4. School authorities should provide and administer a program of school health services. All of the health services which can best and most efficiently be provided *at school* should be included in the program administered by school authorities. Services of any kind, health or otherwise, for which school authorities cannot be held administratively responsible should be provided elsewhere than at school. School authorities should be held responsible for all that goes on within the school. This principle is based on the broad and basic understanding that activities which necessarily take place within any agency or institution should be the responsibility of that agency or institution.

"5. Educational administration should be responsible for assuring that:

MAXIMUM EDUCATIONAL VALUE is gained from health services provided at school.

SCHOOL HEALTH SERVICES are closely related to the instructional program, the general activities, and administrative policies and plans of the school, and have the necessary educational follow-up.

"6. Any program of school health services should be flexible enough to permit the administratively responsible school authorities to utilize fully all the technical services that may be provided either free or on a reimbursable basis by city, county, state or other public health departments, and to obtain through contractual arrangements those essential services

that are not available from such public sources, but which may be purchased from private physicians, dentists, nurses and other qualified personnel on either a full time or a part time basis.

"7. The program of school health services administered by school authorities should include:

DAILY HEALTH INSPECTION by the teacher or the school nurse to observe deviations from normal health conditions.

MEDICAL, DENTAL and other health examinations at intervals by qualified professional technicians as an inventory of the child's health status.

CURRENT AND FREQUENT health examinations of pupils participating or planning to participate in the various forms of competitive athletics or sports and the more strenuous school activities in general, including vigorous physical education exercises.

REFERRAL to the parents and to the family physician or dentist and/or to appropriate public health authorities of those cases needing medical diagnosis and treatment.

"8. Any federal funds for stimulating, promoting, administering, supervising or providing or assisting to provide school health services should be made available through the U.S. Office of Education as grants-in-aid to state education agencies. Federal acts and regulations should not prohibit the administratively responsible state education agency from utilizing to the fullest extent possible under state law all of the technical services that may be available from state and local public health departments.

"9. No federal funds, federal acts or federal agency regulations should be used to require or to enable any federal official to require either joint administration of a program by separate state agencies, or the concurrence by one state agency in a program for which another state agency is legally responsible.

"10. Finally, it is the belief of the National Council of Chief State School Officers that all programs of education, including health and physical education, should be included in a general aid program when and if such legislation is passed by Congress."

The conference adopted three reports presented by the council's planning committee. One of the reports set forth the responsibility of state education authorities for improving educational public relations. Another report outlines a three year study of the function, services and organiza-

tion of state departments of education. A third report presents opportunities for 13th and 14th grades. (See *The NATION'S SCHOOLS* for January 1948, pages 46-49.)

The new president of the council, Dr. Bosshart, was appointed New Jersey commissioner of education in 1943. He has been a principal of elementary and secondary schools, a county superintendent and a supervising principal of school districts in New Jersey.

Dr. Bosshart has been president of

the New Jersey Council of Education, chairman of the New Jersey Department of Superintendence and chairman of the Princeton Survey Committee of the New Jersey Education Association. He is a former president of the teachers association of Rochester, N.Y., and of Essex County, Massachusetts; also former chairman of the New Jersey High School Conference and a past president of the New Jersey Schoolmasters' Club.—*Reported by RALPH B. JONES, state commissioner of education, Arkansas.*

A.V.A. Selects Milwaukee

Vocational Association Elects Californian as President; Renews Contract of Executive Secretary. Chooses Three Vice Presidents.

ELECTION of Julian McPhee to the presidency and the renewal of contract for L. H. Dennis as executive secretary highlighted the forty-first annual meeting of the American Vocational Association in Los Angeles, December 15 to 18. The new president is state director of vocational education for California and president of the California State Polytechnic College at San Luis Obispo. Mr. Dennis has served the A.V.A. as executive sec-

retary since 1934. The action of the committee in renewing his contract for three years was unanimous.

Frank Moore, director of industrial arts for Cleveland public schools, was reelected for another three year term as vice president for the industrial arts education group. Maude Williamson, head of home economics education at Colorado Agricultural Mechanical College at Fort Collins, was chosen for a three year term as vice president for home economics education. She succeeds Anna K. Banks of Brooklyn, N.Y.

The new vice president for a three year term for business education is Donovan Armstrong, state supervisor of distributive education for Louisiana. He succeeds Ira Kibby of California.

Starting his twenty-first term as treasurer of the association is Charles Sylvester, assistant superintendent of vocational education in Baltimore.

The executive committee chose Milwaukee as the place for the 1948 convention and moved the meeting to an earlier date, November 29 to December 4, 1948.

Speakers at the general sessions included Oscar R. Ewing, administrator of the Federal Security Agency; Supt. Vierling Kersey, Los Angeles public schools; C. M. Miller, state director of vocational education, Kansas, and Mrs. Chase Going Woodhouse, member of the 79th Congress from Connecticut.

The commercial exhibitors' citations were awarded Howard A. Campion, assistant superintendent of Los Angeles schools, and Earl L. Bedell, director of vocational education, Detroit.



JAMES FIKA, blind student from Turner, Mich., attending the University of Michigan, tries out the "electric pencil," an experimental instrument which may enable the blind to read by hearing. The pencil contains a photoelectric cell which casts a beam of light along a line of print. As the light passes over each letter, it is converted into sound by the equipment in the case on the desk and magnified by the ear-piece which Fika is wearing. The sounds made by each letter can be distinguished from each other and can be identified by the trained reader.

NEW **LITEGREEN** CHALKBOARD

COLOR-ENGINEERED TO MEET THE MODERN DEMANDS OF
SCHOOL PLANNERS ★ ARCHITECTS ★ LIGHTING ENGINEERS



- *Cheerful Color*
- *Maximum Readability*
- *Low Brightness Ratios*

A COLOR RESEARCHER SAYS:



"Lighter colors play an important part in educational progress and the physical well-being of students. Light green chalkboard is a cheerful soft color that absorbs comparatively little light and provides low brightness ratios throughout the classroom."

A LIGHTING ENGINEER SAYS:



"Constant adjustment of the eyes from extreme dark areas of a chalkboard to lighter areas causes eyestrain resulting in nervous tension and fatigue. With light green chalkboard, students are more relaxed, seeing becomes easier, less energy consuming."

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FILMS, TOO, FROM THE PUBLIC LIBRARY

THE public library in most American communities within the next decade will become the major distribution outlet for motion pictures. The concept that the public library is primarily concerned with the distribution of books must be discarded.

In spite of the fact that 14 metropolitan libraries are already engaged in distributing films and that many others are seeking ways and means of making films available to their communities, many library trustees and librarians are reluctant to accept the motion picture as a type of material which their libraries are obligated to distribute. Some of these individuals narrowly define the library's objective as being the provision of information in printed form—book, pamphlets, periodicals, maps, prints and posters.

Others see as major obstacles to library participation in film distribution the physical characteristics of films, the handling of projectors and the expense of specialized film services. Still others believe that the film is a useful device for increasing book circulations. These negative reactions are relatively unimportant. Attitudes are altering rapidly and most librarians will shortly be accepting the motion picture as a legitimate library concern.

IDEAL DISTRIBUTION CENTERS

A good case can be made for establishing film collections in public libraries. It resolves itself into a problem of film distribution. Maximum film usage will never be realized until films are readily available in the local community. It is true that many commercial and educational organizations are attempting to provide this service but, unfortunately, the coverage is haphazard.

Schools and colleges are developing educational film collections and a few are making their libraries available to community groups but subject holdings are of necessity limited and the

L. HARRY STRAUSS

Executive Secretary, Commission on
Motion Pictures in Adult Education

restrictions imposed are such as to discourage wide utilization. Many state departments of education and extension services of state universities are supplying films to organizations in their areas. Delayed shipments caused by transportation difficulties and the nonaccessibility of films on short notice have tended to discourage the use of films from these sources.

Museums, art institutes and related organizations frequently distribute films to the public but here again specialized interests limit the usefulness of available films. Commercial rental libraries are in some instances giving commendable service. Distribution coverage is mostly limited to large communities; profit rather than education is the prime objective of operation, and film service is frequently supplied to further the sales of projection equipment.

REACHES ALL AGES AND GROUPS

The public library is in the most favorable position to provide film service. It is the only agency that has interests of sufficient breadth to reach all ages and groups. Being a public service agency, it has no "ax to grind." Its long hours of service are such as to encourage the maximum use of films. And, above all, it has a long tradition for providing educational services to individuals and groups. Librarians are trained to furnish program service to clubs, churches, schools, labor unions, cultural groups and adult and youth serving agencies. It is true that this training has for the most part dealt with printed materials; nevertheless, the principles of program planning are the same, whatever the materials.

The handling and administration of films create new problems for the librarian. However, a film is essential

ly a book in different format. It can be stored on shelves; it can be cataloged and classified; it can be indexed, and it can be circulated like a book.

Perhaps the best argument in favor of film distribution through public libraries lies in current library programs. Annually, millions of people are seeing films distributed by public libraries. A few of the more active libraries include those in Akron, Cincinnati, Cleveland, Dallas, Detroit, Grand Rapids, Milwaukee, Minneapolis, Racine and Seattle. Film collections in most of these cities have been in operation during the last five years.

Because of their strategic position in distributing communication materials, public libraries will soon be pulled into film activities on an ever widening scale. Developing trends in the 16 mm. field support this assumption. First among these is the trend toward cheaper equipment.

The high cost of equipment has prevented numerous organizations from making use of films in their programs. Projector prices have risen steadily since the war. Increased labor and material costs do not fully account for this price rise. Film producers and others interested in the distribution of films are beginning to bring pressure to bear on equipment manufacturers and this pressure, coupled with the demand for equipment, will bring costs down. In fact, a major break in the price structure can be anticipated within the next year. A new and improved projector which will retail for slightly over \$300 will soon be on the market and classroom and home models from standard manufacturers should be available soon.

A second trend is the increasing use of sound films in the home.

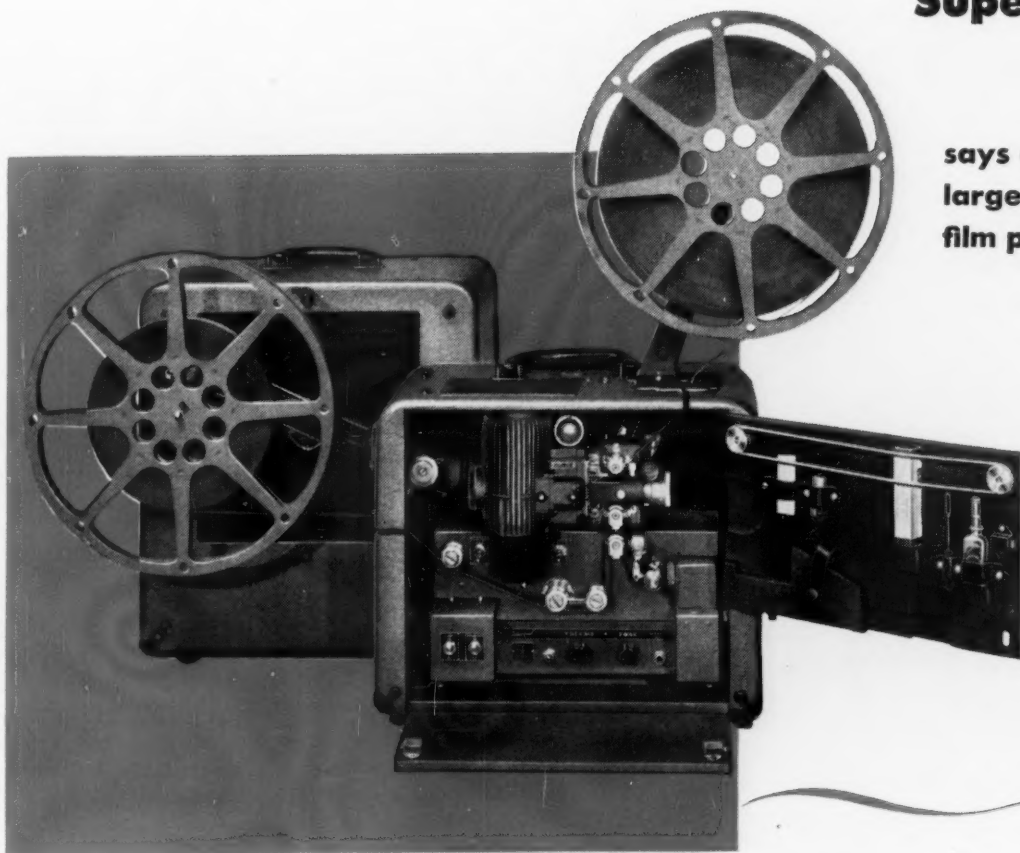
This will undoubtedly create a demand for libraries to supply films as they do books. The Cleveland Public Library has already experienced this

"Our tests showed

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**says one of
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A MAJOR Hollywood film producer needed a number of 16mm sound film projectors. So a corps of technicians was assigned to testing five makes. The result? *"B&H Filmosounds are superior optically, electronically, and mechanically,"* the Chief Projectionist reported. Here are some of the findings he cited in support of that conclusion:

- 1. Finest Pictures.** The B&H shutter results in a great deal less flicker. Lens is very sharp and of high quality. Mechanism appears to be precision-built.
- 2. Superb Sound Quality.** Minimum machine noise, splendid functioning of exciter supply, latest amplifier design. Professional-type film gate, impedance drum, and associated mechanism eliminate speed variation and flutter.

3. Easy to Use. Controls are ideally located. Rewind is perfect.

4. Easy to Service. Amplifier, for example, can be removed and replaced by anyone in less than five minutes.

Not every school can make the thorough comparative tests which assure wise sound film projector selection. But every school *can and should* base its choice upon revealing tests made by unbiased technicians for industrial organizations and school systems.

The B&H Special Representative near you has the complete and interesting story. Bell & Howell Company, 7155 McCormick Road, Chicago 45. Branches in New York, Hollywood, Washington, D. C., and London.

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demand, and is now circulating films for home use. Other libraries will eventually follow suit.

A third trend which will affect libraries is a widening film production program.

Two factors of major importance limit production today: one is the limited market, and the other is the cost of films to the consumer. Films to meet expanding community needs will not be made until the producers have a sufficiently wide market to guarantee a fair return on their investments. A film that sells more than 200 prints is above average today.

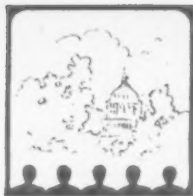
When production costs which average \$5000 or better per reel are distributed over expected sales, it can be seen why current costs are high. A rapid increase in distribution outlets will expand production considerably. Instead of thinking in terms of 200 prints, we should be talking of 2000 prints. As dozens of additional public libraries enter the film field, their cumulative buying power can become significant.

* * *

NOW let us consider possible areas of public library film service. A survey of film activities conducted by the American Library Association in 1945 revealed three levels of service, namely, advisory film showings, loan collections and field visits. The extent to which libraries can develop these three levels will be determined by such considerations as community demand for films, existing community film services, restrictions imposed by library charters and by-laws and internal limitations of budget, staff and building facilities.

ADVISORY FILM SERVICE — The public library can further stimulate the community use of films by providing an advisory service. By working closely with the local film council, if one exists, and with other community organizations the library can readily become a clearinghouse for film information. A usable collection of film information materials is basic to such a service. It would include general catalogs, such as the "Educational Film Guide" and catalogs of local film libraries. To supplement these, the collection could be augmented by selected utilization manuals, pamphlets and periodicals.

Assistance in film selection is a next major concern. The average



community agency worker has not had sufficient experience in utilization to do a good job of film selection. Librarians can extend the services of the library and at the same time develop community good will by aiding program workers with their problems. By keeping abreast of agency program developments and by knowing the content of films, the librarian will be in a position to suggest suitable films.

FILM SHOWINGS—Libraries need not have film collections to make a program of film showings possible. In fact, most libraries now conducting programs of this type obtain their films from outside sources. Lack of projection equipment and projection rooms should not deter libraries from promoting this activity. Projectors may be borrowed or rented from schools, industries and organizations and, by using reading rooms or by co-sponsoring showings in another agency, it is possible for the library to carry on the beginning stages of a film program.

STRAIGHT FILM SHOWINGS—Straight showings are film programs which minimize discussion and present a series of films grouped around a core subject. They may include recreational programs, educational programs for organized groups, educational programs for unorganized library groups having a common interest, and children's programs. The subject content of the showings may be tied into holiday events, such as Christmas and Book Week; seasonal activities, such as gardening; craft activities; sports activities. Community concerns, such as delinquency, health, intolerance and housing, are major subjects for emphasis in film programs. These suggestions indicate the possible range of film showings.

FILM FORUMS — The American Library Association has supported the use of discussion films in libraries through its participation in the National Committee on Film Forums. This committee has issued a report on the Library Film Forum Project

which it conducted from 1941 to 1944. As a result of this research, the film forum technic has been widely accepted by public libraries.

The film forum is an ideal tool for use in library programs. It is a powerful youth and adult education medium; it is the one film technic which can be easily coordinated with other library services and, when it is ably executed, it can be used as an opening wedge for expanding film services. Additional ideas may be obtained by consulting the report cited and the *Film Forum Review*.¹

FILM PREVIEWS — The film preview provides leaders with an opportunity to become acquainted with a wide range of good films. It enables a leader to do a more effective job of selection and to integrate films into his program activities. Previews should be regarded as an important function of every public library. In fact, they should be considered as more significant than either film showings or film forums.

Film holdings are not a prerequisite for preview programs. Any library having projection equipment and a room for showing films can engage in this service. The Cincinnati Public Library, before it developed a film collection, did a commendable job by providing leaders with monthly previews of timely films grouped around subject content areas. The Cleveland Public Library holds weekly previews of all new films acquired, and sponsors special previews for groups.

DEVELOPING A FILM LIBRARY— "How does a library start a film program? The answer is simply to buy a few titles and begin lending them to people."² This suggestion offered by Hoyt Galvin of the public library at Charlotte, N. C., is encouraging, but it represents an oversimplification of the problems involved. Films are expensive; they require separate handling, and they involve some considerations which differ from those of traditional library materials.

Detailed suggestions concerning the development and administration of film libraries are beyond the scope of this article. Such information can be obtained by writing to the Library

¹Film Forum Review, Institute of Adult Education, 525 West 120th Street, New York 27, N. Y., \$2 per year.

²An Educational Film Service Is the Library's Responsibility, Library Journal 69:637, August 1944.

SENSATION of Chicago's International Lighting Show

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Under any normal conditions the HOLDENline Arrowhead *will not warp, sag or otherwise distort*—will not discolor.

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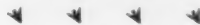


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SELF-LOCKING
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Film Adviser of the American Library Association.³

"How large should be the initial appropriation for starting a film collection?"

Answers, of course, vary. The librarians of Charlotte, N. C., and Cincinnati would probably advise starting with a few films and a small budget. Based on experiences in Detroit and Milwaukee, the librarians there would suggest a basic appro-

priation of \$5000 for films alone. R. Russell Munn, librarian of the public library at Akron, Ohio, suggests the following minimum budget: films, \$1000; equipment, \$500; salaries, \$2200, or a total budget of \$3700.⁴

For what it is worth, I would suggest \$7000 as an initial film appropriation. This sum will purchase approximately 100 film titles which should be regarded as the minimum number needed to provide adequate

⁴From manuscript, *The Film and the Public Library*, April 1947.

³50 East Huron Street, Chicago.

film service. Procuring films from interested civic groups, sponsored film distributors and government sources will, of course, reduce the initial appropriation considerably.

Should libraries in small communities organize film loan collections?

Let us look to the library field for the answer. Public libraries maintaining film loan collections are generally located in cities of 50,000 population or better. This is one answer. Another is suggested by regional library programs. Missouri, for example, is establishing bookmobile service in county library systems, and projectors, films and recordings will be carried along with printed materials on these circuits.

Canada has partially solved its film distribution problem by placing small revolving collections of films in strategically located organizations which include the public library. Schools have found that film purchasing pools and revolving collections provide a form of minimum film service. Why not, then, a regional film project involving a number of smaller libraries in an area?

WILL STIMULATE USE OF FILMS

We have explored the rôle of the film in the program of public libraries, noting trends which should encourage the development of local film libraries, and we have examined three levels of public library film service. If commercial dealers, extension directors and others now engaged in film service to nonschool groups become alarmed at this newer aspect of library development, let it be pointed out that libraries by offering these services will stimulate the use of films irrespective of sources of procurement.

All film lending agencies combined will not be able to meet the emerging demand. For the equipment dealer, the library will become his ablest sales promotion agent. The ready availability of films in the local community will without question open new avenues for the sale of audio-visual equipment.

The film is a faithful servant of the library. Through its use libraries have taken on added significance in the eyes of the public. It has stimulated the use of printed materials and, above all, it has broadened the library's horizons by extending the range of its services.

THE LIGHTER-WEIGHT PROJECTOR YOU'VE DREAMED ABOUT IS HERE

Only \$325⁰⁰ Buys

THE NEW DeVry "Bantam"

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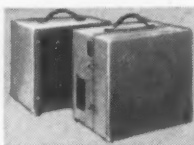
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- ★ Sound and Silent Projection
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- ★ Coated Condenser Lens
- ★ Automatic Loop Setter
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Dual Case "Bantam" projector and amplifier in one case. 8" ALNICO 5 permanent magnet speaker in separate matched case.



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Operation & Maintenance

p. h. d.'s AND THE CARE OF FLOORS

JULIUS BARBOUR

Consultant in Building Maintenance
Michigan State College
East Lansing, Mich.

CUSTODIANS today pride themselves on being p. h. d.'s (public health demonstrators). They know that their daily cleaning tasks play a vital part in building respect for clean, healthful surroundings in the minds of growing boys and girls. In many cases young pupils gain new ideas of cleanliness and health by observation of their friend, the custodian, as he uses a scrubbing machine, adjusts a drinking fountain or damp mops a shower locker room.

Many a young woman beginning housekeeping is aware of how attractive floors can be made as she remembers how the custodian worked to keep her school floors presentable. The idea of cleanliness and orderliness is a contagious one, with the custodian often in the rôle of "carrier."

More than half of all adult visitors to school buildings are women, who are highly conscious of floor conditions. They take particular notice of school floors as they have similar problems at home.

CONVINCING THE TAXPAYER

As about 8 per cent of the construction cost of public schools goes into floors, it is important that they be preserved in presentable shape. Dirty, neglected floors convince taxpayers that the custodian is neglectful, sometimes regardless of how his other custodial duties are performed.

Since everyone looks at floors the custodian might pause to consider some points of floor care and rate himself by the questions given at the end of this article.

We do our cleaning of floors not only to preserve them but also to appeal to the users' sense of cleanliness and orderliness. Custodians who are convinced of this fact do not go through the routine steps of floor care as drudgery but with the realization that they are making a valuable con-

tribution to the public health of their community, particularly when the mental hygiene aspect of community health is considered. Those who travel halls and corridors cared for by these p. h. d.'s do not worry about slipping upon newly waxed floors for past experience has taught them that the custodian of their building knows how to avoid this condition. They drink at fountains which they know are sanitary because they have found he knows how to make a work schedule which allows him adequate time to keep fountain bowls clean.

Pupils take pride in a building where floors are kept clean. In one city in Michigan all pupils take off muddy rubbers and overshoes at the door. The student council of that school for years has taken this method of assisting the custodian. In another school whisk brooms are hung on hooks on each side of entrance doors and children brush snow from their clothing before proceeding into the building's halls and classrooms.

The custodian has some duties of his own in keeping floors in good condition.

MUST KNOW BEST METHODS

In daily mopping operations he knows that cold water is not the answer to cleaning floors. Too much soap on terrazzo is equally dangerous. TSP (tri-sodium phosphate) will "bleed," that is, cause the colors to run, in certain composition floors. The mopstick itself may scratch floors if the filler is not evenly distributed and looped properly into the mopstick.

Baseboards may be splashed if the mop is whipped too vigorously. Mopping is hard work and the custodian is wise who plans to do at least 65

per cent of the day's work during the first half of his work day. As he tires he can slow up slightly and do as effective a job as he did earlier.

Replacement of worn gliders on tables and chairs pays big dividends in floor condition. Semiannual inspection of each piece of furniture should be the rule; these inspections should be followed by immediate replacement of defective gliders, if floor scars are to be avoided.

TO AVOID TRAFFIC LANES

Traffic lanes in classrooms should be varied so that there may be uniform wear on all parts of the floor. Agreements between teachers and custodian that movable furniture may be shifted one pace to the side or toward the front or back of the room on each sweeping or dustmopping will do away with traffic lanes. This shifting also increases the speed of the custodian's work.

In rooms where furniture is not movable, traffic lanes will appear. In resealing these floors during the vacation period the traffic lanes should be "spotted in," with the first coat of seal covering only the worn places. The second coat might be uniformly applied. In applying seal the custodian needs to use particular care near the baseboards. In many cases this area already has several coats of seal built up.

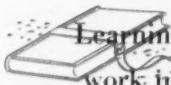
To avoid further building up, the custodian should dip his applicator in the seal and touch the applicator to the floor at least 3 feet from the built up area. He should then draw the applicator toward him and then pass back over the place where the applicator first touched the floor and exert little or no pressure on the applicator as he goes over the built up section.

The applicator containers may scratch the floor if they have not been examined before use for rough edges



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 Learning is first of all a job for eyes, and there are sixty million of them hard at work in our schools today. But, in the average school, there is an actual need for *seven times* the present light.

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which might injure floor surfaces, particularly if they are pushed across the floor and are not caster equipped.

Attempts to blend seals or to pour unused portions back into containers may lead to trouble. Only the novice gets sticky, "tacky" floors by trying to cover a surface seal with a penetrating seal.

Seals are usually covered with wax so that the wear may be on the wax rather than the seal. Most custodians use too much wax. Two thin coats wear much better than one heavy ap-

plication. Work schedules should allow for two applications of wax and, if water wax is used, adequate drying time should be allowed. On humid days this may run as high as twice the normal time for wax to dry.

Where seals are buffed (some schools do and some don't—with about equal success) too coarse a grade of steel wool should not be used. Since the machines won't touch the corners, the hand applicator with a steel wool pad is the answer.

The custodian and teaching staff

must exercise patience as floors dry, if a floor is to look its best. Many have been spoiled by walking on them too soon.

There are many other points in the care of concrete, mastic, linoleum and vitreous tile floors which present our p. h. d. with special problems. Another article will discuss these matters.

But now let us have the school custodian rate himself by answering the questions which follow.

Questions:

1. Do you believe your work is important to school health?
2. Are you sure your entrance corridor (where most office visitors travel) gets extra care?
3. Do you carry a putty knife with you at all times to remove gum from floors?
4. Are your sidewalks swept to prevent needless tracking of dirt into your building?
5. Are your hall wastebaskets located where the traffic passes?
6. Are you careful not to get caught with dirt in the middle of a hall when classes pass?
7. Do you avoid strong abrasives on terrazzo and linoleum?
8. Do you have it understood that you are to be notified immediately when ink is spilled on the floor?
9. Do you allow time at the end of your work day to wash out dirty mops?
10. Do you mop toilet floors regardless of use of deodorants?
11. Do you keep oil mops in a metal container?
12. Do you have the cooperation of the student council in the preservation of cleanliness?
13. Do you keep records of the amounts of material you use?
14. Are the containers in your stockroom turned so you can read the label and follow the manufacturers' recommendations?
15. Do you follow a schedule in your work?
16. Do you follow the plan calling for the least repetition of steps in sweeping a room?
17. Do you wash wax applicators so that your mops will not have one stuck in them weeks after use?
18. Do you store your scrubbing machine so that the weight will not be on the brushes?
19. Do you keep your pet gripes to yourself when meeting the taxpayers?
20. Are you a progressive member of your custodians' association or labor union, studying better ways to do your work?

Affirmative Answers—Rating

- 19-20—You are a superman.
 17-18—You are a p. h. d. (cum laude).
 11-16—You are a p. h. d.
 7-10—You may be slipping.
 0-6—Your slips are showing.

To superintendents: Why not route this article to your custodians and let them rate themselves?



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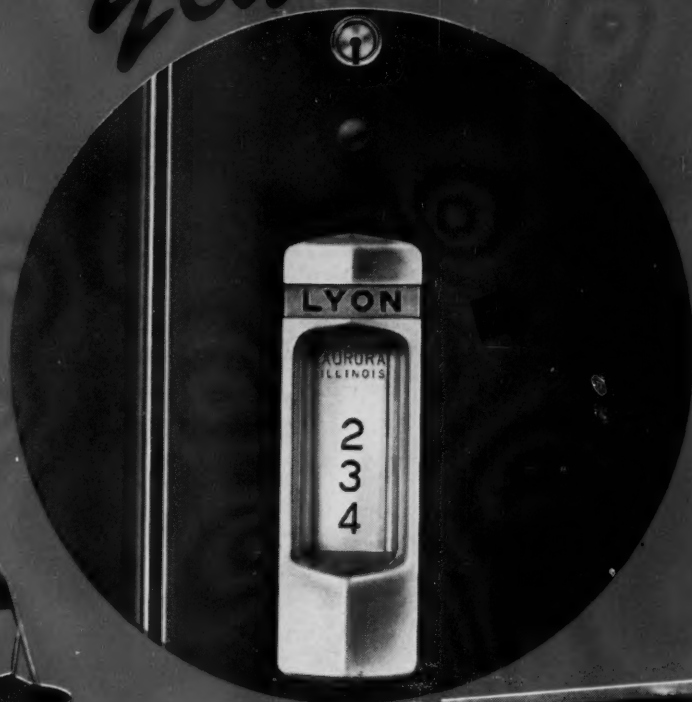
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LET YOUR Huntington salesman help solve your cleaning problems. He will save you time and money. Take floors, for instance. Until Floor-San was developed, you had to keep three or four cleansers on hand all of the time... and instruct each new man on how to treat your costly floors. Now you can use just ONE cleaning compound... Floor-San. It's safe on all floors. Write Department S-2 for sample and prices today.

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Other Lyon features you'll want to investigate before selecting lockers in your building or moderniza-

tion program are new rigid frame, trouble free hinges and positive latch.

Due to the steel situation locker requirements must be anticipated well in advance. If your needs for lockers, folding chairs or vocational shop equipment are urgent, Lyon can make them for you promptly if you can locate a stock of steel of proper specifications. Information promptly furnished.

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| • Wood Working Benches | • Hanging Cabinets | • Folding Chairs | • Work Benches | • Bar Racks | • Hopper Bins | • Desks • Sorting Files |
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U. S. Department of Agriculture

SERVING a school lunch does not always mean that the children are getting the foods they need. According to a survey of nine school lunch programs made recently by the Bureau of Human Nutrition and Home Economics, the lunches do not always provide recommended food values. This condition is probably general.

At a school lunch conference the standard suggested for school lunches was one third of the day's calorie and protein needs and one half the minerals and vitamins. Some nutritionists believe the lunch should provide at least one half of all daily food needs.

In the schools surveyed the lunches yielded less than one third of the daily allowance for nutrients suggested for children, aged 10 to 12, by the National Research Council.* The greatest lack was in vitamin C. About half the meals were low in other vitamins and minerals and in energy value. In protein they made a better showing, for in only one school did the lunch provide less than a third of the day's allowance.

HOW TO INCREASE FOOD VALUES

The bureau's observations in the nine schools suggest three ways to increase food values: (1) better selection of food; (2) improved cookery; (3) food service more suitable for children.

On the days the observations were made, all vegetables and fruits came out of cans, except the potatoes and the vegetables in one salad. Puddings and other desserts were made from prepared mixes and baked goods were generally of the commercial type.

Doubtless there was a need to save labor. However, small changes in the menus, introducing a few foods of high nutritional quality, could have increased the meals' values. For instance, it was the raw vegetable salad



Milk is one source of vitamin B.

that lifted the vitamin C in one school lunch to more than a third of the children's daily allowance for this vitamin. When spinach, carrots or sweet potatoes appeared, each increased the vitamin A content of the meal far above the amount recommended.

With careful selection of foods, school meals can easily supply one third and even one half of all the recommended nutrients. A good guide to follow in planning lunches is the "Basic 7" food groups described in the National Food Guide, AIS-53, which can be obtained free from the Office of Information, U. S. Department of Agriculture, Washington 25, D. C. The use of more nourishing foods need not add to a meal's cost.

Protein, being important for growth, should be provided in school lunches. Each lunch should include, besides one half pint of milk, a main dish, such as

meat, fish, eggs or cheese, that furnishes protein. Such a dish was included in each of the lunches studied. In some, meat was combined with vegetables in a stew. In others, a combination of protein foods was used, such as beans seasoned with fresh pork.

The protein can often be increased in other parts of the meal. In bread it can be boosted by including more milk, a little soy flour, wheat germ or whole grains. Dry beans and peanut butter are also good protein foods.

Because vitamins and important minerals tend to occur in the same foods, choosing more vitamin-rich foods and improving methods of preparation will bring more minerals to the meals.

ABUNDANT VITAMIN A

The three lunches that offered vitamin A values abundantly included either green or yellow vegetables. These are wonderful sources of the carotene that our bodies change into vitamin A. Fortunately, carotene is not easily lost during cooking. The green and yellow vegetables are relatively inexpensive and children like them if they are properly cooked so as to keep their colors bright. They include carrots, broccoli, spinach, kale, collards and all other kinds of greens, winter squash and sweet potatoes.

When a green or yellow vegetable does not appear on the menu, yellow fruits may supply vitamin A. These include canned or stewed apricots and peaches.

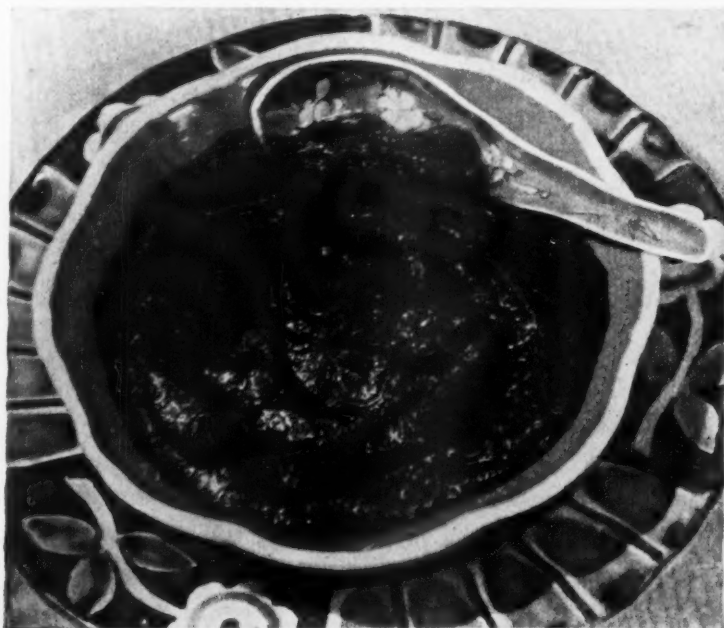
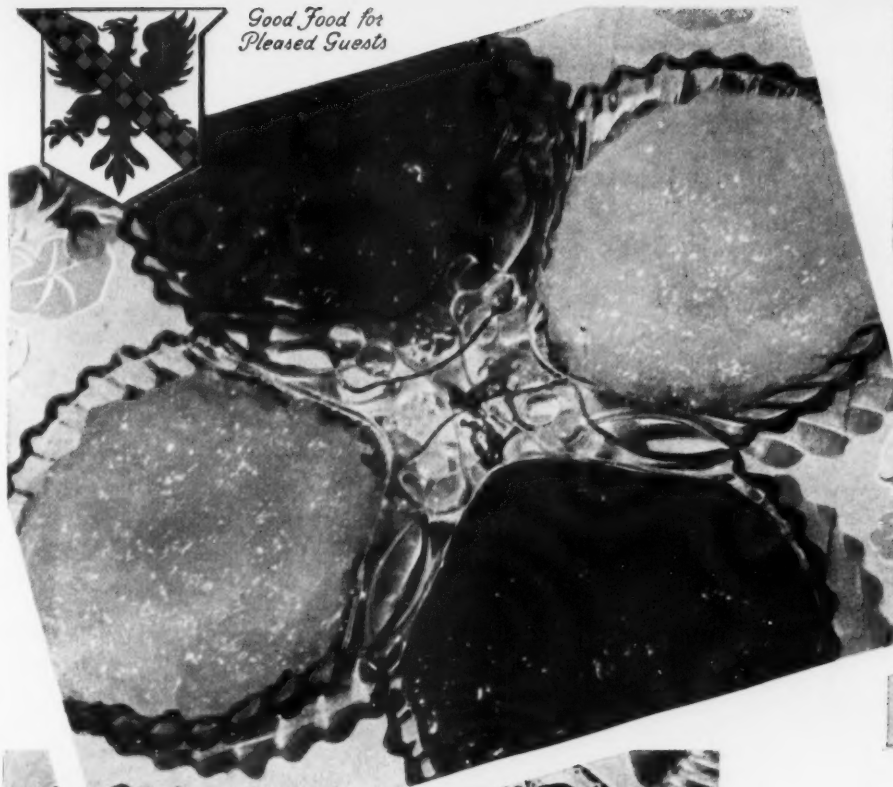
Although most meats contain almost no vitamin A, liver is especially rich in it, as is egg yolk. These foods could be used when neither the yellow fruits nor the green and yellow vegetables are served.

Another source of vitamin A is ice cream. In most of the schools surveyed it was sold outside the regular menu to children who could afford it. If it were included occasionally in the regular lunch, all the children could have it. Usually the protein dish fur-

*Recommended Dietary Allowances, Reprint and Circular Series No. 122, revised 1945. Washington, D. C.



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nishes considerable thiamine, one of the important B vitamins. All meats are good sources, especially pork. Cuts that are not too fat might be served fairly often. Pork must be well cooked, however, as a safeguard against trichinosis even though there may be some loss in B vitamins. Dry beans also contain thiamine.

Children need the energy and protein contained in bread, which furnishes B vitamins in addition. In one school, home-made rolls were served every day. Some schools, not in the bureau's study, bake every other day, making rolls to serve on the day of baking and bread for the following day. The extra labor is believed justified, since the milk and soy flour used add to the protein value of the bread.

If bread is bought, perhaps formulas high in nutritional value could be worked out cooperatively with the baker, the home economics teacher or the P.T.A. This could mean using more whole grains; putting 6 per cent or more of milk solids in the bread; using soy flour or wheat germ. Raisins could be added occasionally.

MORE THAN ENERGY

Desserts, too, can have more food value than just energy. Cookies have high nutritional value. "School Lunch Recipes for 100" gives recipes for cookies using oatmeal, molasses, raisins, nuts and peanuts. In addition to the B vitamins and minerals, these foods provide much of the energy needed by children. "School Lunch Recipes for 100," PA-18, issued by the Bureau of Human Nutrition and Home Economics and Production and Marketing Administration, U. S. Department of Agriculture, may be obtained for \$1 from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

For riboflavin, another B vitamin, milk is the best source. Dried milk, when it can be obtained, is economical. It can be used in meat loaves, gravies, desserts and baked goods. In a large number of schools in areas where fresh milk is scarce, dried milk, reconstituted as a beverage, is now being used successfully.

Raw vegetables, if not cut into too small pieces or allowed to stand too long, retain most of their vitamin C. It's a good idea to use raw vegetable salads frequently, especially for older children. Cabbage is an excellent source of vitamin C. It lends itself to many salad combinations that usually

appeal to children—such as cabbage with carrots and green peppers; with raisins; with apples; with peanuts; with marshmallows and pineapple; with bananas; with bacon dressing.

Raw carrots, too, are popular. Other yellow vegetables and green vegetables can also go into raw salads, increasing vitamin A as well as vitamin C. Care must be taken, though, that the salad is not too sour or greasy.

A tray of strips, wedges and slices of various raw vegetables without dressing might be offered. These could include green peppers, onions, turnips, cauliflower, celery and carrots.

When salad is not on the menu, the dessert might provide the vitamin C. Instead of a gelatin dessert made with water, canned fruit juice can be used. Or for a midmorning treat, citrus juice made into a punch, sweetened with the canned fruit sirups, is palatable.

In two of the schools surveyed, the lunches included canned fruit cocktail either as a salad or as a dessert. Another lunch offered had canned peaches; a fourth, canned applesauce. When canned fruit is used, the vitamin C value can be improved by mixing fresh fruit with it. When fresh fruits, such as peaches, apples, oranges and bananas, are abundant, let the children eat them out of hand.

If neither salad nor dessert yields enough vitamin C, it can be provided in the cooked or canned vegetable. Even higher in vitamin C content than the citrus fruits are broccoli, collards, mustard greens, turnip greens and kale, when raw; tomatoes and tomato juice, fresh or canned; raw potatoes and sweet potatoes.

TO RETAIN VITAMIN C

The general rules for keeping the vitamin C in vegetables are to cook them in their jackets, if possible, or in large pieces; use a small amount of boiling water; cook the vegetable until just tender, and serve at once. Since some of the vitamins and minerals dissolve in water, use the cooking liquid whenever possible.

To increase the calories, every school meal should offer an abundance of bread made with enriched flour or whole wheat, and butter or fortified margarine. Even though the main dish is served on a biscuit, it's well to serve additional bread. Potatoes, too, can be included in nearly every lunch. Peanut butter, cheese, cookies and sweet foods will also supply calories plentifully. Since many food values can be put

into the dessert, it can be as important nutritionally as any dish on the menu.

The goal of the school lunch program is not achieved until the food is eaten. Attention must be paid to all details of seasoning and serving, since children are sensitive to such matters.

Studying the plate waste is the best way to keep alert to the children's reactions to foods. If waste is great, steps should be taken to improve the food, increasing its acceptability. Why trouble to prepare foods which it is known children do not like?

Lunch managers need to find ways to make less popular food more interesting and enjoyable. The form in which it is served often affects its acceptability. Lettuce under a salad is usually left on the plate, but when it is cut up and included as one of the ingredients it is eaten.

TRAYS MAKE A DIFFERENCE

In one of the schools studied, almost half the children refused to take milk, even though it was included in the price of their meal. One reason may have been that there were no trays and it was hard for the children to carry both a plate and a bottle of milk. In schools where the milk was already on the table, all of the children drank it.

Sometimes cooked vegetables were wasted. Certain schools met the problem by offering a choice of two vegetables of similar food value, so that a child could select the one he liked. In another, when a child refused the vegetable, the server would say "Try a little," placing a small portion on the plate. This was received graciously and usually eaten.

One manager serves a less well liked vegetable with the favorite, mashed potatoes. A small bit of bacon does a lot for liver and helps to flavor green beans.

Even very young children have rather definite eating habits which may not always be good. But they can be changed. The school lunch can be a practical demonstration of the principles of good nutrition; it provides examples that can be used in teaching. For instance, one school, for a lesson on milk, collected in a jar all the milk that the children left at lunch. When the teacher discussed what this meant, milk drinking improved.

By analyzing its own problems, almost every district can find ways of improving its methods of selecting, cooking and serving lunch to the children in its schools.

NEWS

Need \$13,000,000,000 for School Buildings . . . All-Out for Federal Aid . . . Truman's Message Points Out Education's Needs . . . Higher Education Changes Outlined . . . New Group Backs Military Training

Washington Correspondent: HELEN C. BROWN

Need \$13,000,000,000 For School Buildings

WASHINGTON, D.C.—The U.S. Office of Education reports that to meet the nation's present need for school buildings would require the expenditure of \$11,000,000,000. This estimate was based upon data supplied by 37 states.

A breakdown of this total shows that \$7,400,000,000 is needed for elementary and secondary schools, of which public schools need \$6,600,000,000. To provide adequate facilities for colleges and universities would require at least \$3,500,000,000.

These estimates are only of present needs for additional space, replacement of obsolete buildings, repair of currently used structures and replacement of temporary buildings acquired largely for veterans' use. Anticipated increase above present enrollments will add proportionately to the need for buildings. This additional amount is estimated at a minimum of \$2,000,000,000.

"All-Out" Campaign For Federal Aid

WASHINGTON, D.C.—Early in January, Willard E. Givens, executive secretary of the National Education Association, held a press and radio conference to initiate an all-out campaign for passage of legislation in this session of the Congress to provide general federal aid to education. The N.E.A. is backing S. 472, introduced by Senator Taft. The companion bill in the House is H.R. 2953. The Senate bill was favorably reported out by the committee on labor and public welfare on July 3, 1947. It provides for an appropriation of \$300,000,000 per year beginning July 1, 1948, "for the purpose of more nearly equalizing public elementary school and public

secondary school opportunities among and within the states."

Before any state can be eligible for federal funds, its legislature must enact legislation accepting (1) the provisions of the act, (2) designation of appropriate state officials to administer it and (3) assumption that in states where separate public schools are maintained for minority races the funds shall be justly and equitably apportioned to such schools. Until the next regular session of the state legislature after the enactment of the federal bill, the chief executive of the state may take such action as is necessary to permit the state to qualify.

Proposes \$50,000,000 For Youth Health Programs

WASHINGTON, D.C.—Congressman Javits has introduced a bill, H.R. 4646, which would provide \$50,000,000 a year of federal funds to assist states and municipalities to "develop youth programs for promoting the health and soundness of youth and for diminishing juvenile delinquency."

The specific activities authorized in the bill are the conduct of studies of the "conditions and underlying causes of the delinquency of youth, including the conditions of family, religious and social life and adjustments," and the operation of specific programs varying from "citizenship orientation" and psychiatric examinations to athletic and other health activities.

The bill also provides for the naming in each state of an advisory committee on youth composed of "representatives of schools and colleges, social workers, state and municipal governments, local youth organizations, trade and industrial organizations, labor unions and interested private agencies and outstanding citizens."

Education Emphasized in Truman's Message

WASHINGTON, D.C.—The President's message to Congress, January 7, included several topics directly or indirectly related to education, such as financial aid, continued interest in the welfare of G.I.'s, universal military training and an executive department for health, education and security. Said President Truman:

"Our educational systems face a financial crisis. It is deplorable that in a nation as rich as ours there are millions of children who do not have adequate schoolhouses or enough teachers for a good elementary or secondary education. If there are educational inadequacies in any state, the whole nation suffers. The federal government has a responsibility for providing financial aid to meet this crisis.

"In addition, we must make possible greater equality of opportunity to all our citizens for an education. Only by so doing can we ensure that our citizens will be capable of understanding and sharing the responsibilities of democracy.

"The government's programs for health, education and security are of such great importance to our democracy that we should now establish an executive department for their administration. . . .

"We have had, and shall continue to have, a special interest in the welfare of our veterans. . . . More than 2,000,000 veterans are being helped through school. . . .

"We are giving, and will continue to give, our full support to the United Nations. While that organization has encountered unforeseen and unwelcome difficulties, I am confident of its ultimate success. . . .

"The passage of the National Security Act by the Congress at its last ses-

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sion was a notable step in providing for the security of this country.

"A further step which I consider of even greater importance is the early provision for universal training. There are many elements in a balanced national security program, all inter-related and necessary, but universal training should be the foundation for them all.

"A favorable decision by the Congress at an early date is of world importance. I am convinced that such action is vital to the security of this nation and to the maintenance of its leadership."

Grandstand Collapse Explained in Detail

LAFAYETTE, IND.—Authors of the article, "How a Grandstand Collapsed and Why," published in the December issue of *The NATION'S SCHOOLS*, have asked that attention of readers be directed to their longer and more detailed article in *COLLEGE AND UNIVERSITY BUSINESS* for November. The shortened version, as published in *The NATION'S SCHOOLS*, presented the conclusions of the longer article. The complete report of the investigating committee is on file in the governor's office in the State House at Indianapolis. It is available for examination by interested persons, states P. E. Soneson, associate professor of architectural engineering at Purdue University.

North College Hill Has Lesson for All

WASHINGTON, D.C.—At a time when the relation of religion and education has again been highlighted by the conflict over the singing of Christmas carols in the Brooklyn schools and by the appeal to the Supreme Court regarding the constitutional right of the clergy to teach religion in the classroom, the report on the investigation of North College Hill, Ohio, issued on December 17 by the National Education Association, is of special interest.

The 30 page report summarizes the

actions of the school board and the steps that led to the releasing of the superintendent of schools in July 1947. The issue was whether a Catholic elementary school at North College Hill would be considered a part of the school system and receive public funds. When the board resigned in June, the school, by Ohio law, came under the jurisdiction of the probate court. Soon thereafter the superintendent was re-employed under a three year contract.

The "lesson of North College Hill" only indirectly deals with the religious issue. It emphasizes the need of clarifying and strengthening the responsibility of the superintendent in the selection and retention of teachers. The report renounces board members who "through influence or control over the superintendent's ultimate period of tenure, effectively determine the selection of staff for personal or political reasons." It makes concrete suggestions as to legislation to prevent such control and urges "every community to look to its schools and insist that its board of education be composed of intelligent, unprejudiced men and women of good will."

New Group Pushes Military Training

WASHINGTON, D.C.—More than 50 national organizations which support universal military training have organized the National Security Commission. Its purpose is to press for enactment of universal military training during this session of the Congress.

The meeting was called by Owen J. Roberts, retired U.S. Supreme Court Justice, who was elected national chairman of the new commission. Among the organizations participating in the creation of the commission were: Kiwanis International, Polish Legion of American Veterans, the United States Conference of Mayors, American Legion, V.F.W., Elks, Moose, U.S. Chamber of Commerce, Sons of the American Revolution, Jewish War Veterans, Amateur Athletic Union,

Rotary International, National Federation of Business and Professional Women's Clubs and American Council of Christian Churches.

Several meetings have been held also of the national organizations opposed to universal military training. These include education, religious and welfare groups, labor and the American Veterans Committee.

Although many believe that it is unwise to hold hearings on the compulsory military training bill while Congress is debating the Marshall plan, pressure from the White House and the army will probably result in hearings being held in January before the Senate Committee on Military Affairs. The House committee approved the bill just prior to the adjournment of the Congress last summer.

Would Reduce Teachers' Income Tax

WASHINGTON, D.C.—Congressman Pepper in December introduced S. 1863 which, if acted upon favorably by Congress, would permit teachers to include the cost of professional courses among their income tax exemptions:

"In the case of an individual employed as a teacher in any public or private school, all expenses for tuition, books, laboratory fees and equipment, living, travel and other incidental expenses, necessarily incurred while pursuing at any institution of learning a course of instruction required for continuance of his employment or for advancement in grade or salary and approved by appropriate school authority for such purpose."

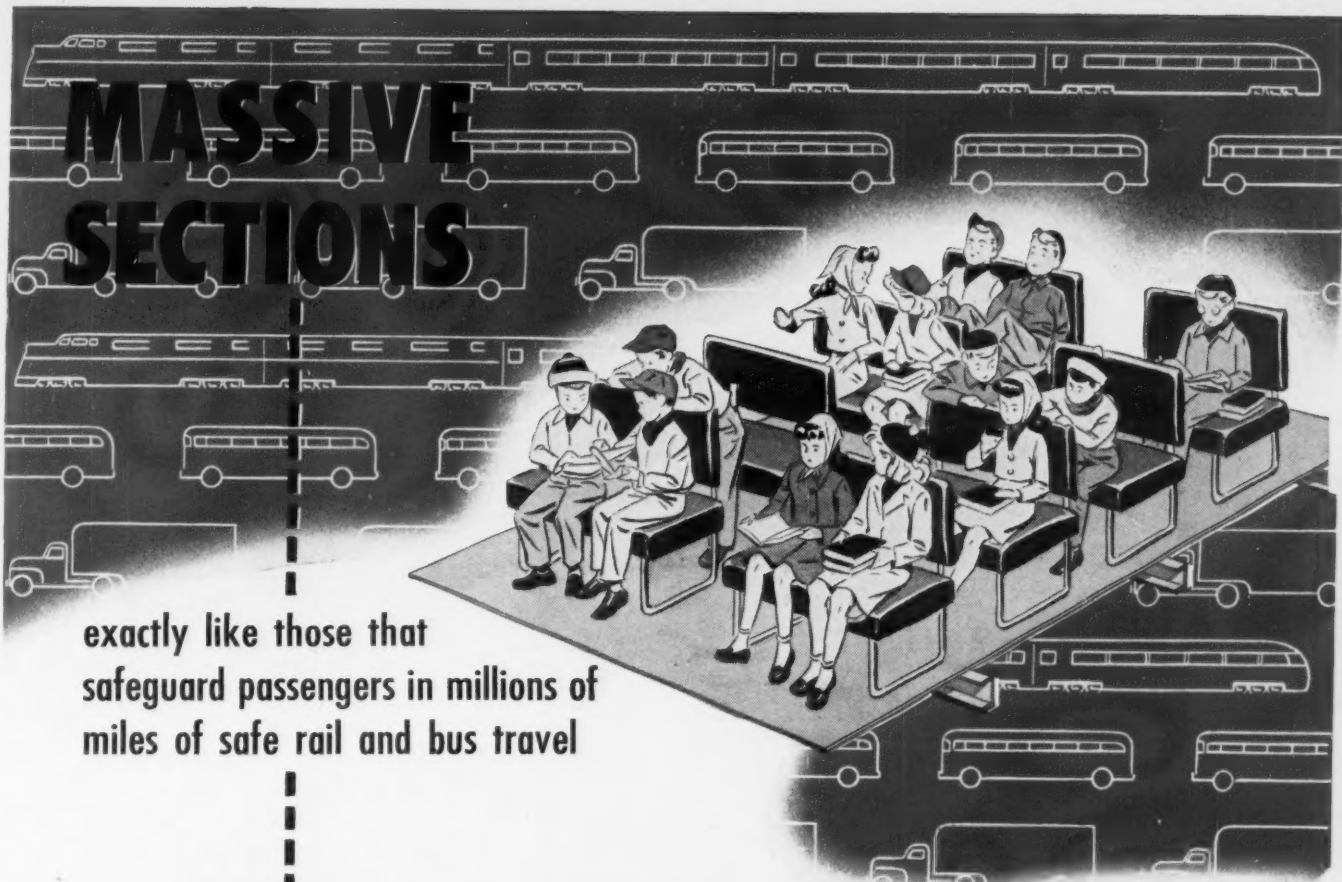
The proposed amendment to the Internal Revenue Code would be retroactive to the tax year beginning January 1, 1947. The bill was referred to the committee on finance.

Salary Increases Lag Behind Spiraling Cost of Living

ALBANY, N. Y.—A study of the salaries of teachers in New York State for 1946-47 has been made by Arvid J. Burke, director of studies, for the state teachers' association.

In 1946-47 salaries began to make a significant adjustment to inflation. The median elementary teacher's salary was \$2212, which was a gain of 18 per cent over the \$1876 median for 1945-46. The median for secondary teachers' salaries was \$2637, or a 15 per cent gain

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An opinion survey of school administrators answers
the question in *The NATION'S SCHOOLS* for March.



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over the median of \$2318 in 1945-46. These gains in one year almost equaled the gains made from 1939 to 1946. During that seven year period the median elementary teacher's salary rose only 22 per cent and the median secondary teacher's, only 15 per cent.

Taking the state as a whole, exclusive of New York City, there has been only a 47 per cent increase in elementary teachers' salaries and a 31 per cent increase in those of secondary teachers

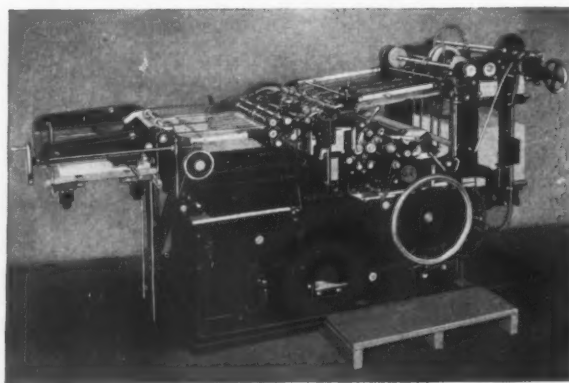
since 1939. To take up the inflation which occurred during these seven years, resulting in wage levels more than 100 per cent higher than in 1939 and retail prices approximately 60 per cent higher, a 60 per cent adjustment in teachers' salaries over the 1939 level would be necessary merely to restore the purchasing power of the teacher's dollar.

In the cities the per cent of increase generally has been less than this, the biggest increase being in the supervisory

districts where salaries were extremely low. A large part of the increases outside of the cities must be credited to bringing salaries into alignment rather than to adjustment to inflation. For example, the highest percentage of increase, 86 per cent, has been in the one teacher districts where the median salary in 1939 was only \$954. In 1946-47 it was \$1773.

The relatively small percentages of increase in city school districts means that the standard of living of these teachers was reduced between 1939 and 1947. For example, the median elementary teacher's salary in the largest cities was \$2208 in 1939 and \$2275 in 1946-47. In 1939 purchasing power, this latter sum is equivalent to only \$1665, which means that the real standard of living of these teachers has been reduced by nearly 25 per cent.

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Research Accelerated By Government Aid

WASHINGTON, D.C. — The annual report of the Carnegie Institution, of which Dr. Vannevar Bush is president, shows far-reaching advances in pure science.

The report points out that scientific research in the United States has undergone a major revolution as a result of the vastly increased financial support by the government, chiefly through the army and the navy. The line of demarcation has become less distinct as science has probed deeper into many fields.

Studies in the field of cancer, conducted by the department of genetics, probably are the closest approach yet to determining the basic causes of malignant growths.

One of the most spectacular discoveries was an ancient Mayan temple in Mexico whose wall paintings and inscriptions will extend the knowledge of the early history of America.

Finish High School, Says the Navy

WASHINGTON, D. C.—The Bureau of Naval Personnel has issued new instructions for recruiting students in secondary schools and junior colleges.

Prospective recruits are urged: (1) to remain in school, if possible, until graduation; (2) to learn about the vocational-career opportunities of the navy just as they learn about other occupations; (3) to prepare for naval service while still in school by studying

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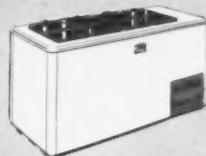
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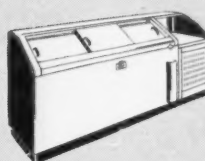
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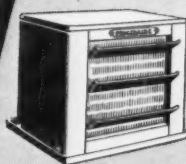
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subjects which will contribute to their future needs, such as mathematics and physical sciences, and by taking advantage of the health education and physical fitness program of their schools.

Recruitment officers are directed to contact students only in the presence of advisers appointed by the school administration, to avoid all proselyting of students who can possibly remain in school and to point out the physical, mental and moral qualities required of

all students who enlist in the navy.

The navy offers to assist school officials who desire information in presenting the navy program to interested students, to supply speakers and to arrange for teachers, science classes and others to visit available naval establishments.

Approval of the recruitment program has been given by the American Vocational Association, the National Education Association, the committee on relationships of higher education to the

federal government of the American Council on Education, the National Association of Secondary-School Principals and other educational groups.

Federal Scholarships Urged For Nonveteran Students

WASHINGTON, D.C.—The immediate establishment of a federal program of scholarships and fellowships is urged by the President's Commission on Higher Education in its second report, "Equalizing and Expanding Individual Opportunity," released late in December.

To initiate the program of scholarships, the commission recommends an appropriation for 1948 of \$120,000,000 to provide financial assistance to at least 20 per cent of all non-veteran students enrolled in institutions of higher education. Scholarships should be awarded on the basis of student need, the maximum being \$800 for an academic year. Students would be free to select the college or university of their choice and a state scholarship board in each state would determine the amount of the scholarship grant for each student.

Federal fellowships of \$1500 a year based on a national competitive examination are also recommended.

To equalize educational opportunity "without regard to race, creed, sex or national origin" the commission recommends the elimination of the quota system, state legislation to prevent discrimination and the end of segregation in educational institutions.

Foreign Scholarship Exchange Has Regional Offices

WASHINGTON, D.C. — President Truman's Board of Foreign Scholarships has developed plans to put the Fulbright student and faculty exchange into effect. It is estimated that funds now available will make it possible to keep 1800 American students and faculty members abroad and pay the transportation of an equal number of foreign students to the United States.

The Institute of International Education has been asked by the board to select the students. The institute proposes setting up regional offices with a staff of three persons in each to accept applications, give tests, conduct interviews and make recommendations to the board.

The U.S. Office of Education, the



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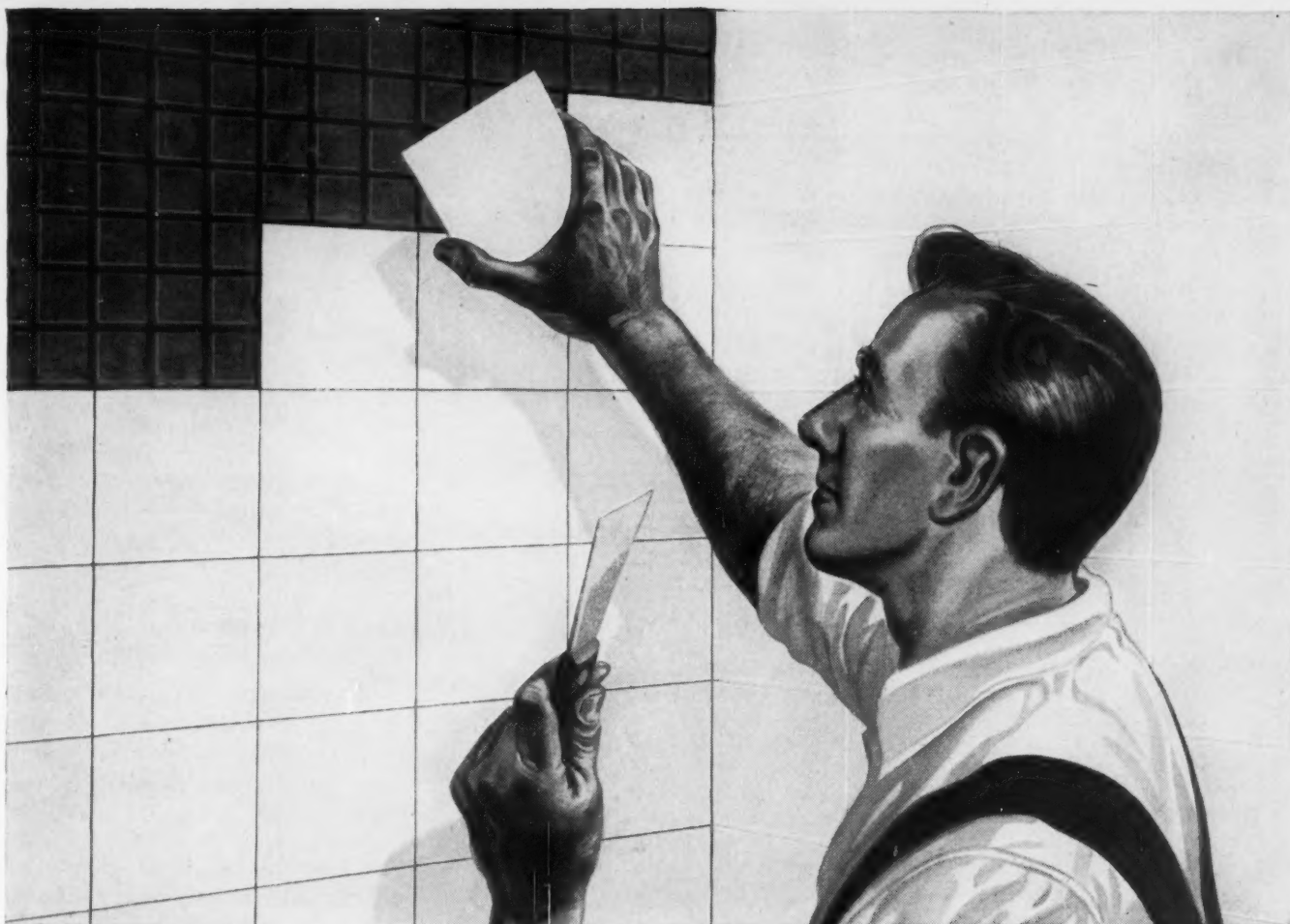
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You can have sparkling new walls and ceilings in a hurry when you use Armstrong's Veos Wall Tile. It is erected on a unique foundation grid that aligns each tile perfectly and makes the installation a quick, neat job.

You don't have to worry about additional structural support, either. This method of installation saves heavy cement setting, and the tiles themselves are so light that the completed wall or ceiling weighs only $3\frac{1}{2}$ pounds per sq. ft. —light enough to go up right over old walls without added bracing.

Armstrong's Veos Wall Tile will give you dependable service for the life of the building. It won't crack, craze, peel, or fade. That's because this sturdy tile is genuine vitreous

porcelain fused on steel. Since the porcelain and the steel expand and contract at the same rate, there are no strains which can cause cracking or crazing.

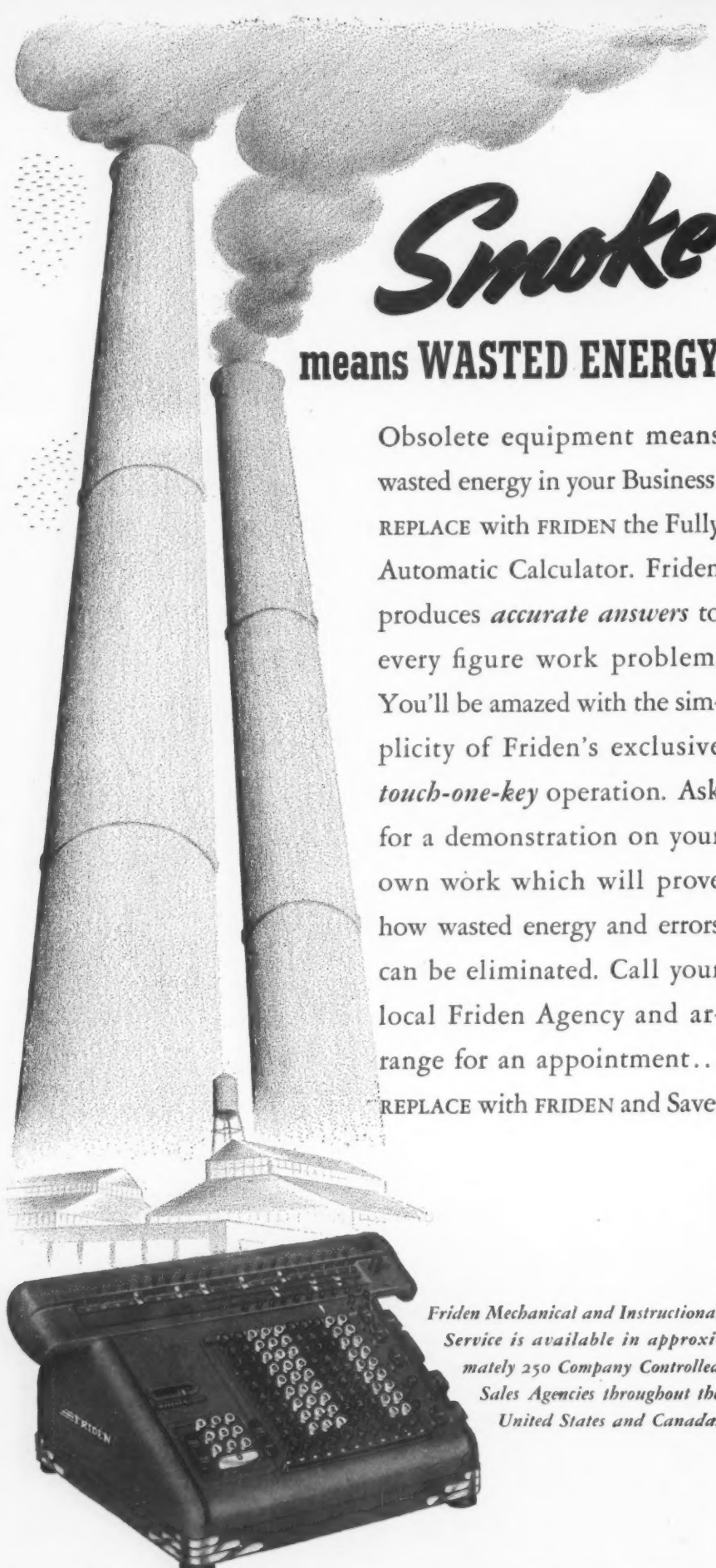
The base of Veos tile is tough, rigid 20-gauge steel. On this base are two full thicknesses of porcelain, fused to the steel in furnaces at 1300° F. The porcelain serves as a rustproof coating covering both sides and all edges.

Maintenance of Veos tile is simple. The smooth, hard surface

is as easy to wipe clean as a mirror. Six clear colors and a variety of sizes and shapes make Armstrong's Veos Wall Tile adaptable to any type of installation. It is ideal for locker rooms, corridors, kitchens, and cafeterias.

Before you build or modernize, ask your local Veos contractor to give you all the facts about this durable material. Or write direct to Armstrong Cork Company, Veos Tile Section, 3702 Frederick Street, Lancaster, Pennsylvania.

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NEWS...

agency responsible for selecting faculty, proposes setting up regional offices in Philadelphia, Boston, Atlanta, Chicago, Des Moines, Dallas, Los Angeles and Portland, Ore.

The Associated Research Councils recommended setting up a committee, with consultants in specialized fields, to select research workers and other specialists.

Final approval of candidates recommended by the cooperating agencies rests with the board. Applications in their respective fields may be addressed to the cooperating agencies or directly to the Board of Foreign Scholarships, State Department, Washington 25, D.C.

Extend, Coordinate Higher Education

WASHINGTON, D.C.—The establishment of publicly controlled community colleges to be "free" to the same extent as are secondary schools was recommended by the President's Commission on Higher Education in the third volume of its report. This volume, entitled "Organizing Higher Education," was published January 19. It recommends changes in the organization of colleges and universities which the commission believes necessary to achieve a goal of 4,600,000 students by 1960.

The report emphasizes that this expansion of the educational program through the 13th and 14th grades will be made possible largely by an extension upward of the public school system in the larger communities. Those too small to maintain such programs at the size for efficient administration should unite into larger units and establish district colleges. The commission cautions against undue multiplication of institutions and recommends that the development be on the basis of a carefully worked out program to meet the needs of higher education of the entire state.

Within each state, the commission recommends the establishment of an effective state department of education embracing all levels of schooling. The appointment of a state board of education is recommended. This lay board should appoint the chief state school officer and assist in the determination of educational policies within the state.

In states in which higher education

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means considerable savings in fat costs—many other advantages. Quality-made everywhere. Available with back extension for Garland battery. Available for use with manufactured, natural and L-P gases. Automatic safety pilot furnished as standard equipment when L-P gas is used. Approved by American Gas Association Laboratories. See your Garland dealer or write us direct.

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NEWS...

is now independent of the state department of education (and in those in which it does not appear possible, because of statutory or constitutional limitations, to extend the powers to include higher education) it is recommended that a state board of higher education be created. The commission emphasizes, however, that the creation of an independent board is a last alternative and should be only a transition development pending changes in

law which would permit the creation of a strong, unified state education department.

On the federal level, the strengthening of the U.S. Office of Education is strongly recommended. It is proposed that this be done by increasing federal appropriations for the office and by giving it a higher status among federal agencies. The commission also recommends that all of the educational functions of the federal government

be conducted within a single agency.

Recognizing that this cannot be done immediately, it is proposed that an interdepartmental committee be appointed to avoid unnecessary duplication and to work toward unification in the Office of Education. The appointment of a Federal Advisory Board on Higher Education is proposed to work with the Division of Higher Education of the U.S. Office of Education.

The rôle of national voluntary agencies in higher education is fully recognized and the commission recommends still closer cooperation among such agencies and with the federal government. Accrediting organizations and those in the professional fields that exercise control of institutions through membership are urged to appraise their policies in terms of the national interest rather than in terms of their own vested interests.

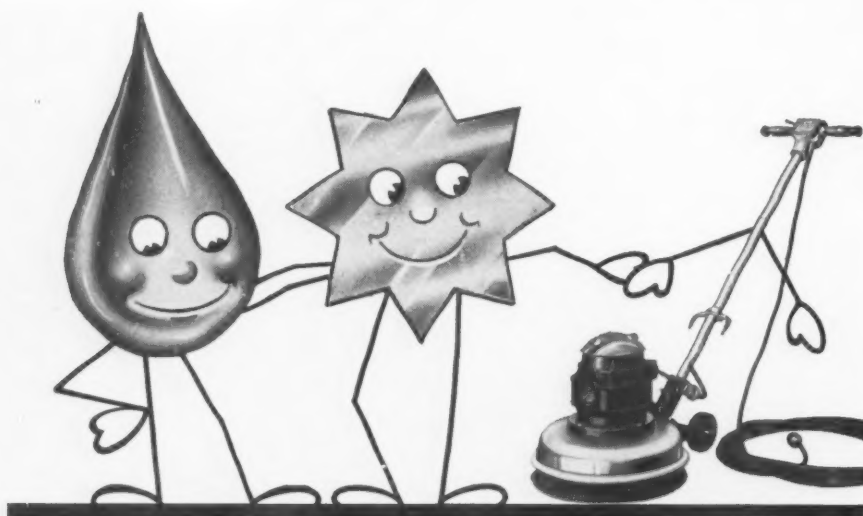
G.I. Students Renew Subsistence Campaign

WASHINGTON, D.C.—Student veterans representing some 30 states met for two days, December 17 and 18, to plan strategy in pressing for Congressional action liberalizing G.I. benefits. Their immediate concern was to have the House pass the bill which would increase subsistence payments of full time veteran students, if without a dependent, from the present \$65 to a proposed \$75 per month. Veterans with one dependent would receive \$105 per month instead of the present \$90, and \$15 per month would be added for the first child.

Broader Education Program Can Void Military Training

KANSAS CITY, MO.—"Universal military training would be unnecessary," states a resolution of the National Council of Phi Delta Kappa, if "support of a complete educational program for the youth of America" is given. Meeting in this city December 28 to 31, the council elected officers for a two year period, adopted resolutions and conducted other business.

Another resolution maintained that education should be given specific support in the proposed federal science research foundation regardless of whether other social sciences are included. The statement asserted that education deserves research at govern-



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easier and safer than any other method. And it's more economical too—more gallons of more efficient cleaning solution per ounce. Try it.

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NEWS...

ment expense just as much as does agriculture. A committee was named to present this viewpoint to Congressional committees.

Phi Delta Kappa will continue its projects of teacher recruitment, education for international cooperation and educational research. A special commission was created to study support of public education.

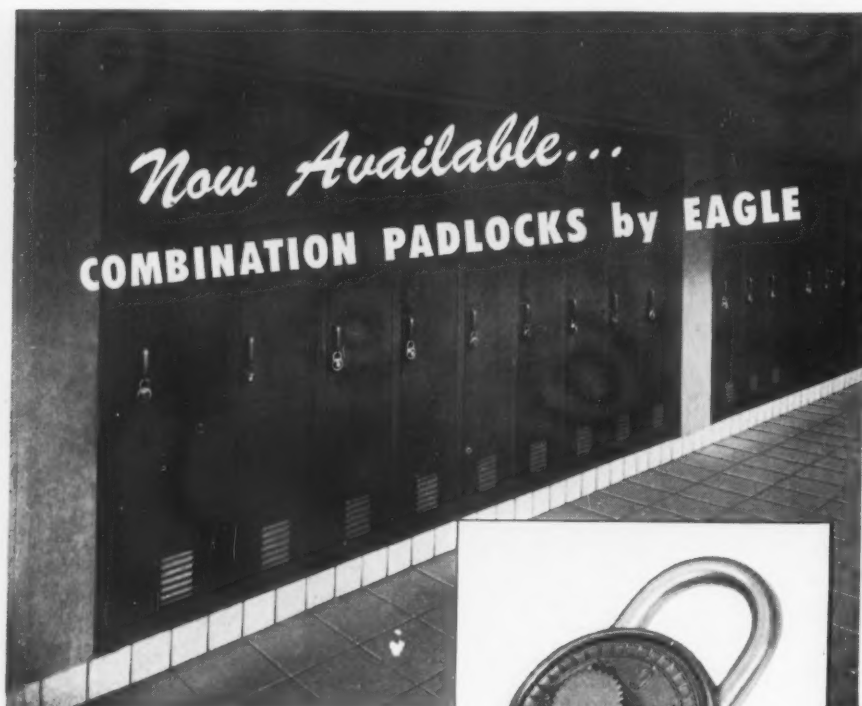
Officers elected for the next biennium are: Earl O. Liggitt, superin-

tendent, Munhall, Pa., president; George C. Kyte, school of education, University of California, vice president; W. W. Carpenter, school of education, University of Missouri, secretary; Douglas G. Grafflin, Chappaqua, N.Y., public schools, treasurer, and Gladstone H. Yeuell, college of education, University of Alabama, historian.

District representatives are: George A. Odgers, Grays Harbor College,

Aberdeen, Wash.; Emery Stoops, Los Angeles; George R. Powell, Kansas City, Mo.; Russell E. Jones, Black Hills Teachers College, Spearfish, S. D.; Floyd T. Goodier, Illinois State Normal University; Ira M. Kline, White Plains, N.Y., and W. E. Rosenstengel, University of North Carolina.

Continuing in office are R. I. Hunt, editor-in-chief of *Phi Delta Kappan*; D. L. Olson, office manager, and Paul M. Cook, executive secretary.



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lock provides 144 regular combinations with 4500 combinations available. The lock holds the combination in the unlocked position and is self-locking when the shackle is pushed in.

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For Today and Tomorrow

KALAMAZOO, MICH.—How this city's children are educated for today and tomorrow is told pictorially in "Living Together," a booklet published recently by the board of education. Its action pictures include the areas of health, basic skills, talents, encouragement of adventure, development of curiosity, loyalty, helpfulness and cooperation. The brochure was distributed to the community as a part of Supt. Loy Norrix' annual report.

COMING EVENTS...

FEBRUARY

American Association of School Administrators, Atlantic City. Feb. 21-26
American Association of Teachers Colleges, Atlantic City. Feb. 19-21
American Society of Curriculum Development, Cincinnati. Feb. 15-21
Boy Scout Anniversary Week. Feb. 6-12
Educational Press Association of America, Atlantic City. Feb. 24
National Association of Secondary School Principals, Atlantic City. Feb. 21-25
N.E.A. Department of Adult Education, Atlantic City. Feb. 25-27
Oklahoma Education Association, Tulsa. Feb. 13, 14

MARCH

Georgia Education Association, Hotel Henry Grady, Atlanta. Mar. 3-6
National Catholic Education Association, San Francisco. Mar. 31-Apr. 2
South Carolina Education Association, Columbia. Mar. 18-19

APRIL

American Association of Health, Physical Education and Recreation, Kansas City, Mo. Apr. 19-23
Idaho Education Association, Boise. Apr. 23, 24
International Council for Exceptional Children, Des Moines. Apr. 25-28
Kentucky Education Association, Henry Clay Hotel, Louisville. Apr. 14-16
Music Educators National Conference, Detroit. Apr. 17-22
Oregon Education Association, Portland. Apr. 1-3

JULY

National Education Association. July 5-9

OCTOBER

Association of School Business Officials, St. Louis. Oct. 10-14

HIGHLINE GETS *high value* BY STANDARDIZING ON *Macks*



Part of Highline's fleet
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Another school bus operation that has standardized on Macks is the consolidated Highline Public School District No. 401, King County, Washington. Highline's initial Macks, four of which were put into service in 1937, gave such satisfaction that the township has since added twelve more. These Macks carry over 2,300 children daily to Highline's six grammar schools and one high school . . . with all the safety, reliability, and economy for which Mack school buses are renowned. Let your Mack representative show you how Macks can improve your school bus operation.



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NEWS...

"Wipe Out School Slums!"

NEW YORK.—Complaints of numerous civic, parent, labor and educational groups against this city's inadequate educational facilities were voiced in a recent report by the Public Education Association, in cooperation with the New York State Educational Conference Board. Following the report, these various organizations united in demanding that steps be taken to wipe out the city's "educational slums," and backed

up the Public Education Association's request that \$140,000,000 more be allocated to the city's schools, with \$40,000,000 of this sum to come from state aid.

Conditions complained of include overcrowded classes; outmoded buildings, 171 of which were built before the Spanish-American War; filthy textbooks, and lack of well qualified teachers.

Andrew G. Clauson Jr., president of

the board of education, admitted that there were many conditions which should be remedied but stated that in the last analysis financial support for the schools comes from the taxpayers. He suggested that if the Public Education Association and other groups would conduct a campaign to educate taxpayers with regard to the necessity and desirability of adding millions to the school budget, conditions could be improved. He pointed out that the board of education this year has the largest budget in the city's history, \$14,000,000 above the 1946-47 budget.

N.E.A. in Cleveland, July 5 to 9

WASHINGTON, D. C.—Cleveland has been chosen for the eighty-sixth annual meeting of the National Education Association, July 5 to 9. Departments will meet on Monday, July 5. Representative assembly sessions and meetings of state delegations and discussion groups are scheduled.

Physically Handicapped Week

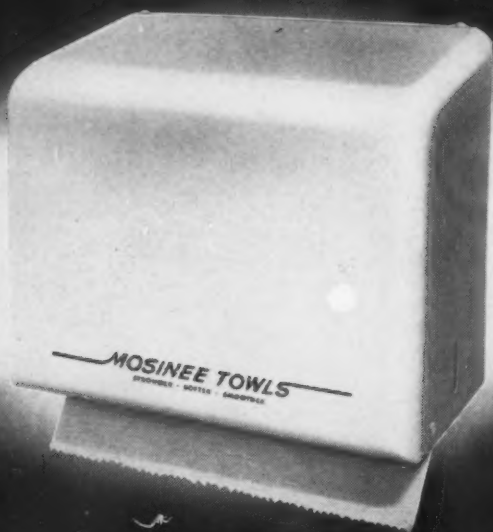
WASHINGTON, D.C.—The President's Committee on National Employ - the - Physically - Handicapped Week, working with the interdepartmental committee which deals with the same subject, is now formulating plans whereby employment of the physically handicapped will be stressed throughout the year. The movement will culminate, as formerly, with a special observance during the first week in October.

Industrial Institute for Negroes

WASHINGTON, D.C.—A bill, H.R. 4664, was introduced in Congress by Mr. Miller of Nebraska which would authorize the establishment of a National Institute for Industrial Training for Negro Youth, to be operated at no cost to the government by the Booker T. Washington Birthplace Memorial in Washington, D.C.

The proposed legislation would authorize the Public Housing Administration and the Defense Homes Corporation to convey title of two defense housing projects to the memorial organization. The bill specifically provides that the institute is to be exclusively for Negro youths, irrespective of their residence, "including Negro veterans of World War II who, because of limited education, are not eligible for training under the G.I. Bill of

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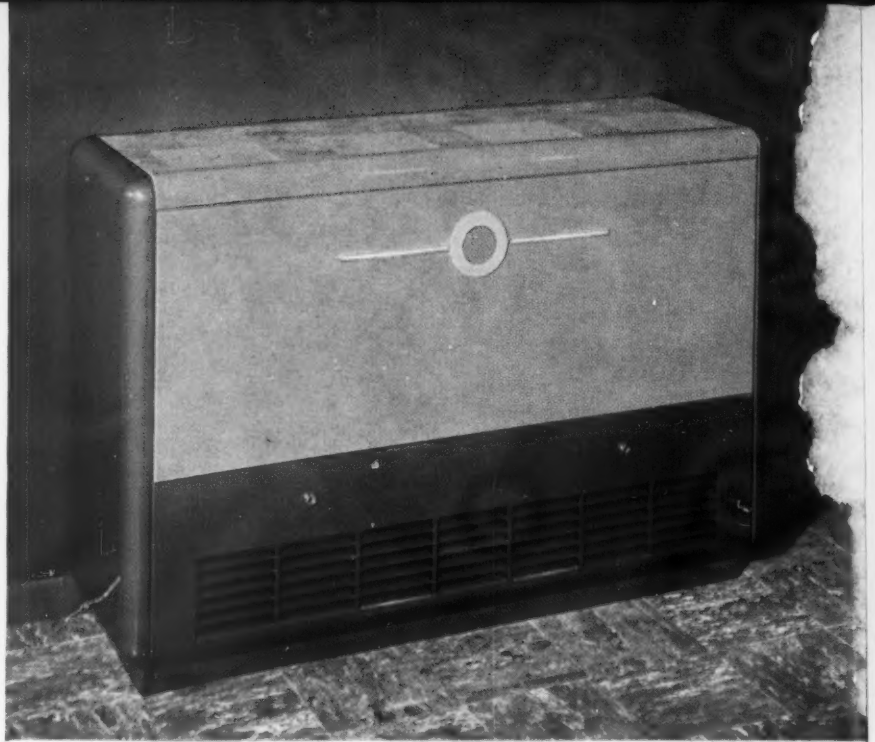
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The first post-war contribution to
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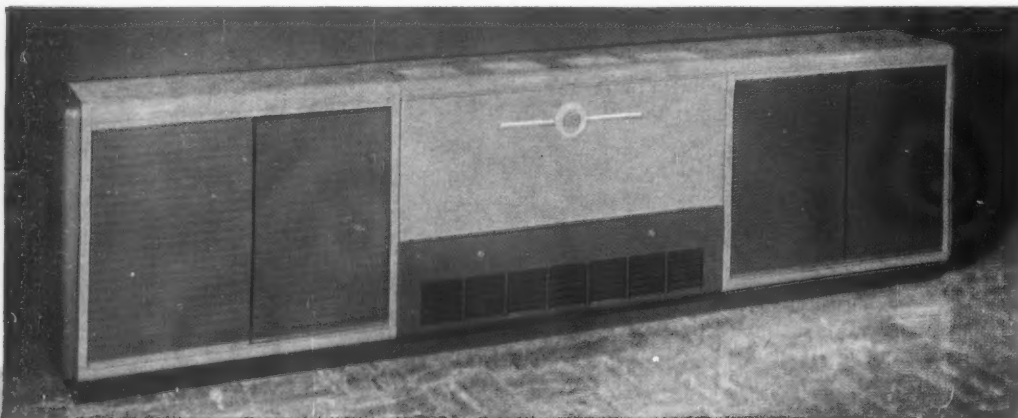
The first post-war contribution to better schoolroom health and comfort has been incorporated in the new Herman Nelson Unit Ventilator. Knowing that the biggest obstacle to perfect control of unit ventilators was the inability to gradually throttle the steam supply to the heating element and at the same time distribute the steam uniformly throughout the heating element, Herman Nelson research engineers devised a pressure equalizing unit to solve this problem. By bleeding air into the heating element from the return line this unit permits maintenance of an equal pressure when the steam supply is throttled. Together with other Herman Nelson features of design and construction, this development assures maintenance of healthful and comfortable air conditions in the school classroom.



The new Herman Nelson Unit Ventilator

9 IMPORTANT POINTS OF SUPERIORITY contributing to better schoolroom health and comfort

- ① **SLOW SPEED, DIRECT CONNECTED MOTOR** contributes to quiet operation and assures long, dependable service. Location of motor in end compartment permits use of entire cabinet space for fans and allows them to be placed above heating element. Control unit easily reached through access grille.
- ② **MODULAR FAN UNITS** assure uniform tip speeds and outlet velocities on all sizes of units. Occupying entire cabinet space, fans are large and quiet. Location of the fans at outlet of unit permits uniform temperature of air introduced into room from each outlet.
- ③ **FLOATING HEATING ELEMENT**, with one end of each tube riding free, cannot be damaged by expansion and contraction. Internal steam distributing tubes assure uniform distribution of steam within heating element. Location in lower section of cabinet permits convection of heat with fans not running.
- ④ **PRESSURE EQUALIZING UNIT** between heating element and return line allows gradual throttling of steam supply. It permits maintenance of an equal pressure when the steam supply is throttled by bleeding air into the heating element from the return line. A special device designed into this unit prevents by-passing of steam.
- ⑤ **CONDENSATE COOLING SURFACE** prevents flooding of heating element. This extended surface, located in the air stream, permits the trap to function properly so that condensate does not back up in the heating element, preventing even distribution of steam and causing water-hammer.
- ⑥ **WELDED CABINET CONSTRUCTION** assures modern, structural strength. Front panels and ends are easily removed for full access to all parts during installation. Only a small, easily handled front panel need be removed for changing filter. Directional flow discharge grilles provide proper distribution of air throughout room.
- ⑦ **AUTOMATIC BACK DRAFT DAMPER** prevents cold air from passing through room air grille. It is held open when unit is not in operation to permit convection of heat. Outdoor air damper is perfectly balanced and of light weight construction, requiring little power for operation.
- ⑧ **DEMOUNTABLE WALL INTAKE** permits an absolutely weather-tight installation. Louver assembly can be removed from the intake frame which is set in the wall. Intake opening is then accessible for caulking wall opening.
- ⑨ **INTEGRAL DESIGN OF CABINET** permits the unit ventilator to be used by itself or as a section of a group including utility cabinets and convectors. Utility cabinets can be added at any future date. Any combination of units is always finished on the ends so that it is not necessary to line the entire wall with shelving.



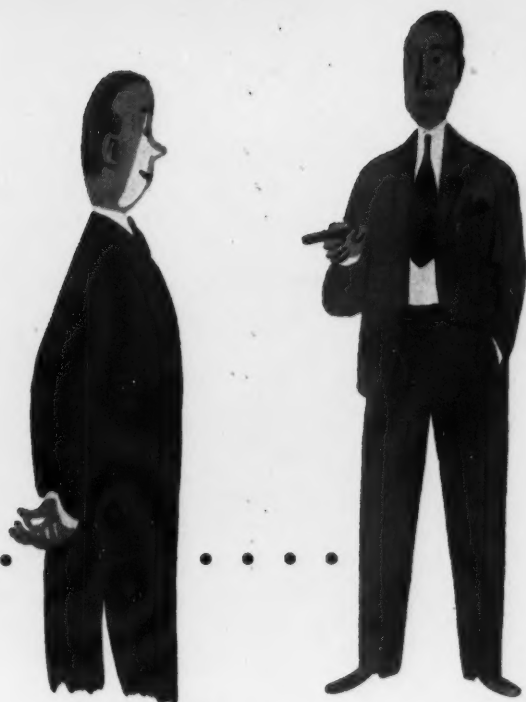
New Herman Nelson Unit Ventilator with Utility Cabinets. Illustration shows how Cabinets or Convectors and Ventilator become one integral unit. Additional cabinets may be added at any time desired.



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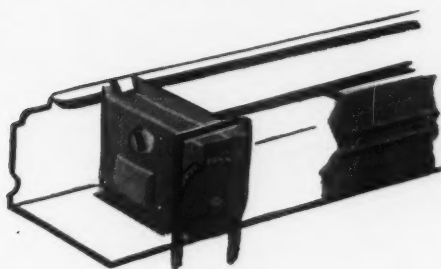
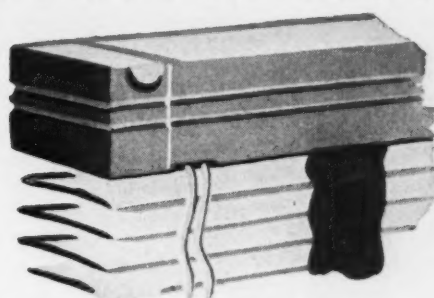
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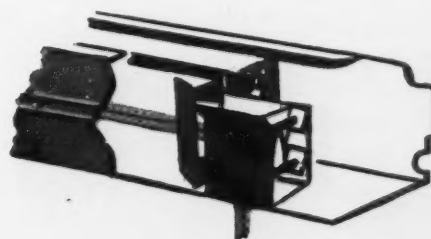
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WORKS LIKE A CHARM... NEW AUTOMATIC STOP... Radically new, radically better...and exclusive with Columbia! Just release the cords, walk away...the blind stops automatically—just where you want it. Tested 10,000 times for dependability!



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Add to the roster: new tiltor prevents cord slippage... tape clip-grips for easy removal of tapes to clean or shorten... beautiful, hard finish for easy cleaning... but let a Columbia dealer **SHOW** you! He'll prove that "CCC" has produced a superior Venetian blind. Choose steel or aluminum slats. We'll be glad to give you the name of dealer nearest you.

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NEWS...

Rights." Since all veterans who have had a minimum of 90 days' active duty are eligible for G.I. benefits, it is apparent that this term refers, rather, to those whose education is too limited to make it possible for them to profit from enrollment in an established school or college.

Teacher Tenure Analyzed

WASHINGTON, D.C.—The committee on tenure and academic free-

dom of the National Education Association has published its report in a 70 page pamphlet entitled "Teacher Tenure: Analysis and Appraisal." The report is divided into five parts: position of the N.E.A. on tenure; status of state provisions for teacher tenure; summary of teachers' contract laws other than tenure; analysis and appraisal of teacher tenure laws, and an appendix which analyzes the specific legislation in 10 states.

The report states that while it is impossible to determine the exact number of teachers covered by the various types of tenure legislation, it is evident that there is considerably less tenure protection for teachers in rural than in urban areas. In 39 states, city teachers have protection while only 34 states protect rural teachers. In 13 of these states more protection is provided urban than rural teachers.

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District Votes More Funds

MONROE, MICH.—A new central school building is in prospect for Jefferson Consolidated School District, Route 4, Monroe, Mich. The district has voted to exceed the 15 mill limitation by 8 mills for five years, and has approved a \$500,000 bond issue for a new building. This district is a consolidation of seven former primary districts. The cinder block building which was constructed to accommodate the sixth, seventh and eighth grades will be converted into a bus garage upon completion of the new central building, according to T. R. Hood, superintendent of schools.

Would End Discrimination

NEW YORK.—The human relations commission of the Protestant Council of the City of New York made an appeal recently for state legislation to end discrimination in education. It asks that an agency within the state department of education be created to work toward this end. Dr. Robert W. Searle is executive secretary of the human relations commission.

State Groups Join Forces

CAMBRIDGE, MASS. — Several state groups have joined efforts through a newly organized Massachusetts Association for Adequate Financing of Public Schools. The affiliation includes the state organizations of superintendents, school board members and parent-teacher organizations, respectively, and the Massachusetts Federation of Teachers. Cyril G. Sargent has been named executive secretary. Alfred D. Simpson of Harvard University is acting as consultant.

Building Program Under Way

HUTCHINSON, KAN.—Construction of a new elementary building will start this city's \$1,330,000 postwar



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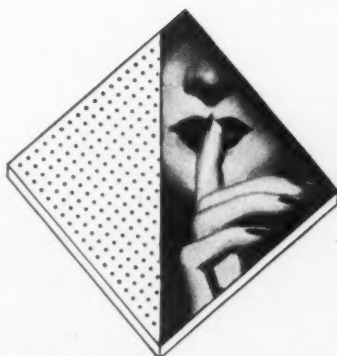
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NEWS...

school building program. A continuous school survey, begun in September 1943, is the basis for much planning for the future by the board. The survey includes data on taxation, per capita costs, salaries, teacher loads, professional staff, attendance, enrollment, age-grade distribution, achievement and health.

Asked to Accredite Schools

CHAMPAIGN, ILL.—The Secondary School Principals' Association has asked the University of Illinois to continue accrediting Illinois high schools until the schools themselves have been consulted about a change in procedure.

Freedom Train Documents

WASHINGTON, D.C.—The American Association of University Women and other groups have recommended that facsimile copies of famous documents on the Freedom Train be published in a loose-leaf volume and made available to schools and libraries. This authentic source material would ensure a more nearly accurate teaching of history.

A Joint Resolution, S.J. Res. 160,

has been introduced to authorize such a publication and referred to the committee on rules and administration.

When Buying Surplus Extinguishers

DAYTON, OHIO.—Care should be used in purchasing war surplus or used fire extinguishers, according to George H. Boucher, president of the Fire Protection Institute, in an article in the October issue of *Firemen*. Such extinguishers cannot be considered either safe or dependable until they have been properly inspected by fire protection technicians.

Slack-ers Win

CAMDEN, N.Y.—A bitter battle over the wearing of slacks to classes by girls of the Camden Central School was settled recently. Two girls who appeared clad in this fashion were told to go home and put on skirts, the principal, Donald H. Barker, stating that it was his duty to enforce the rule of the school that students be "appropriately dressed."

The parents sided with the girls and kept them home. When it ap-

peared that the matter might have to be brought before the Oneida County Children's Court for decision, the school board ruled that the wearing of slacks would be permissible.

Women Deans to Meet

CHICAGO.—The National Association of Deans of Women will join with the Council of Guidance and Personnel Associations in their annual meeting at the Stevens Hotel in Chicago, March 29 to April 1.

Audio-Visual Teaching Aids

NEWARK, N.J. — A mimeographed bulletin service, "Book, Film, Radio Guide," was begun recently by the department of libraries, visual aids and radio of Newark's board of education. Volume 1, No. 2, issued recently, lists motion pictures, books, filmstrips, pamphlets, records, posters and other illustrative materials as teaching aids for the elementary school health program.

Religion and the Schools

NEW YORK.—A "Fact Sheet on Religion and the Public Schools" was pre-

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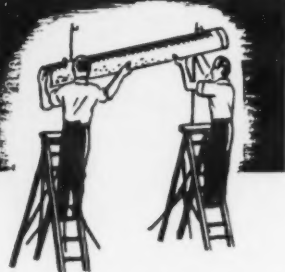
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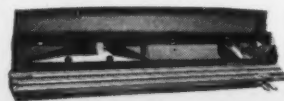
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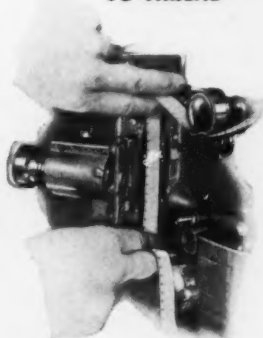




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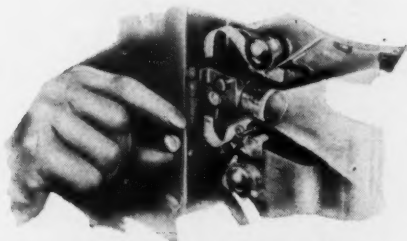
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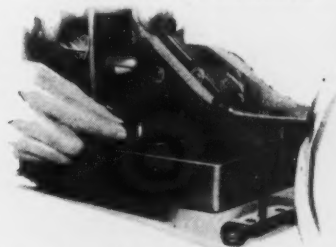
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NEWS...

pared recently by Arthur J. S. Rosenbaum, director of Interfaith Activities of the American Jewish Committee, 386 Fourth Ave., New York 16, N.Y. Its 14 pages are mimeographed.

American Brotherhood Week

NEW YORK.—American Brotherhood Week, sponsored by the National Conference of Christians and Jews, Inc., will be observed in schools throughout the country February 22 to 29. Inquiries regarding materials and pro-

gram aids may be obtained from Dr. Herbert L. Seamans, National Conference of Christians and Jews, Inc., 381 Fourth Avenue, New York 16.

INSTRUCTION

Pupils to Be Bilingual

TUCSON, ARIZ.—Starting in the first grade, all elementary school children in this city are being taught to speak Spanish as well as English. From the

third grade on, they will be taught to read and write Spanish so that by the time they reach junior high school they will be bilingual. Similar programs aimed at creating a better understanding between English and Spanish speaking peoples are under way in Texas, New Mexico, California and Florida, according to Jonathan L. Booth, supervisor of elementary schools. Tucson teachers who know little or no Spanish are learning it along with the children.

Driver-Training Institute

NEW YORK. — Teachers College, Columbia University, recently conducted a five day, forty hour institute in automobile driver training. It was attended by 53 teachers from 44 high schools in New York and New Jersey, who studied classroom and behind-the-wheel phases of the driver training program. One half of an academic credit was granted those who successfully completed the course.

Accent on Safety Education

NEW YORK.—Appointment of a full time director of safety education for the public schools was approved by the board of education. The recommendation was made by Frank L. Jones, president of the Greater New York Safety Council. New York's accidental death rate was 3.4 per cent less this year than in the corresponding period last year. Safety education in the schools has been effective in reducing accidents among children and in forming attitudes which help them to become safer workers, motorists and housewives, the council states.

Backs Character Education

TEXARKANA, TEX.—C. E. Palmer, president of Texarkana Newspapers, Inc., and founder of the Palmer Foundation, has set aside \$100,000 for use in promoting character development in the public schools and other institutions.

Nearly 1,000,000 in R.O.T.C.

WASHINGTON, D.C. — A total of 152,656 students were enrolled in army R.O.T.C. courses in schools and colleges during the first semester of 1947-48, according to a tabular summary released recently. Of this number, 57,769 were in junior units and 94,887 in senior units. Approximately 80,000 are



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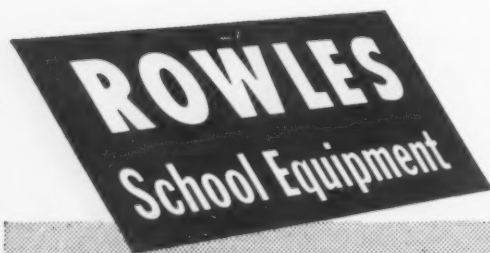
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Here's a chalkboard eraser that erases with amazing efficiency, is easy to clean, and built to give you twice the wear.

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American Book Company

NEWS...

in colleges and universities which are not primarily military; 8000 are in military colleges which grant degrees, and the others are in institutions which do not grant degrees or are of less than college grade.

In addition to those enrolled in R.O.T.C. units in schools and colleges, there is a total male enrollment of more than 750,000 in other army R.O.T.C. units. The grand total is 844,481.

FINANCE

Seeks Tax Exemption

NEW YORK.—The Association of Retired Teachers of the City of New York is seeking the support of other teachers' organizations in its campaign to obtain a \$1400 federal income tax exemption for all retired teachers.

Maryland Increases School Aid

ANNAPOLIS, MD.—State aid to education in Maryland was increased during the first three months of this fiscal year by more than \$3,000,000 above that for the same period a year ago. The public expenditures council states that

it expects the total state-aid-to-education funds to be given to localities this year to be \$12,300,000 more than during the previous fiscal year.

Campaign for Funds

ESOPHUS, N.Y. — The Wiltwyck School for Boys, Inc., for rehabilitating delinquent and neglected boys ranging in age from 8 to 12, has opened a three year campaign to raise \$1,000,000. The school is interracial and accepts mostly boys whom no other institution will take, according to Mrs. Louis S. Wales, president of the board.

INTERNATIONAL

Use Finnish War Debt Funds

WASHINGTON, D.C.—Eleven Senators filed a joint resolution recently proposing that President Truman set aside in a special fund all further payments on the Finnish war debt. They would have this money used to educate Finnish youth in this country. Cited as precedents were the turning over of the Boxer indemnity funds to China for educational purposes and a similar use

of funds remaining with the Commission for the Relief of Belgium after World War I.

Contest Based on UN Study

NEW YORK.—The annual contest among high school students for a European trip sponsored by the American Association for the United Nations is now under way. It is open to public, private and parochial students under 21 who must take an examination on the United Nations, to be held April 9.

Study material is furnished by the A.A.U.N. Each participating school may enter two papers in the final competition for national prizes. Teachers wishing to enroll their schools should register with the A.A.U.N. at 45 East Sixty-Fifth Street, New York 21, N. Y.

Larger Budget for UNESCO

LAKE SUCCESS, N.Y.—Educational activities of UNESCO, as planned or reaffirmed at the recent conference in Mexico City, include projects for the greater development of libraries, for the exchange of publications and the coordination of bibliographic services for



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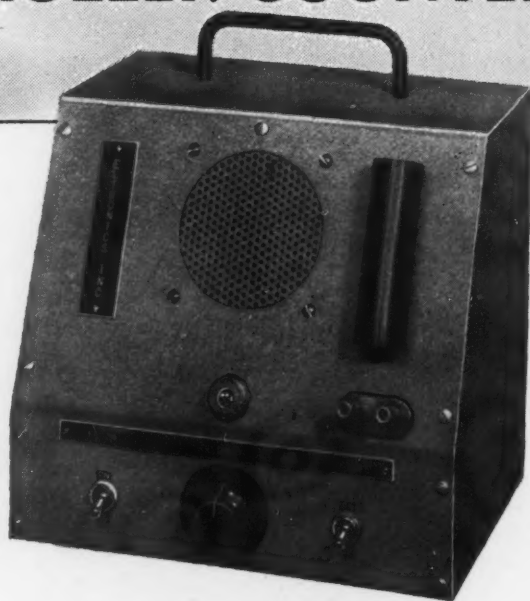
CLASSROOM LECTURE DEMONSTRATIONS. Illustrates the use of the Geiger-Müller Counter in detecting and measuring radiation from radio-active materials.

—Indicates the presence of and relative intensity of radio-active materials.—Each ionization event taking place in counter tube causes loud clicks in built-in loudspeaker and flashes light on front panel.—Will operate with any self-quenching counter tube not requiring over 1000 volts.—Completely A. C. operated.

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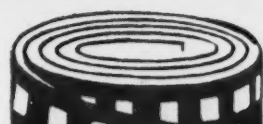
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Jack pays Miss Allen a dollar bill.
Jane pays 90 pennies.
Who pays more: Jack or Jane?

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NEWS...

the arts and sciences throughout the world. The program for the improvement of textbooks and for stimulating adult education and greater international understanding will be continued.

"Pilot projects" in China, Haiti, East Africa and other regions will seek to reduce illiteracy and to raise educational standards. Three international seminars for teachers are being planned for this year. Consultants will be sent to countries requesting expert aid in their educational programs.

The 1948 program adopted at Mexico City involves a budget of \$7,685,637, which is approximately a 20 per cent increase over the operating budget for the year 1947.

They Say It With Flowers

WASHINGTON, D.C.—Pennies saved by Dutch school children have made it possible for the United States next spring to receive 8000 azalea plants from Holland. The gift is a token of gratitude for America's part in the lib-

eration of their country from the enemy.

The gift was announced by three representatives of Holland at a recent conference. Although plans have not yet been completed for their distribution, it is hoped that some of the bulbs will be available to schools located in climates adapted to their growth.

VETERANS

G.I. On-the-Job Training

WASHINGTON, D.C.—Congressman Sikes has introduced a bill to increase the maximum duration of veterans' on-the-job training under the G.I. bill. At present a veteran may spend two calendar years in such training; the proposed legislation would extend the maximum time to four years. The bill was referred to the House committee on veterans affairs.

G.I. Tuitions Reduced

NEW YORK.—Education costs for veterans attending private schools in the New York area have been reduced \$2,075,000 by the Veterans Administration. The saving for 1947-48 was the result of a renegotiation of V.A. contracts with about 350 private schools that operate for profit and train veterans at V.A. expense. Original contracts with the schools were based on revenues received from their 1945-46 veteran enrollments. As these enrollments increased in 1947, school operating costs for each veteran decreased. The renegotiated contracts represent an adjustment in tuition costs to meet the increased revenue of the schools and still come within the allowable 10 per cent margin of profit, according to David P. Page, a deputy veterans' administrator.

Knit Brows Over Numbers

ISLAND TREES, L.I., N.Y.—What happens when a housing development for veterans whose families number approximately 1000 children suddenly appears within the limits of a one school district with only a two room frame building and two teachers to take care of the 35 pupils? That's what has happened in the Jerusalem Avenue School District. True, only about 100 of the children are of school age, but even that number is puzzling the school board and property owners.

As a temporary solution, the extra youngsters are being farmed out to the

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NEWS...

five schools in the neighboring Hicksville district. For some of them this means a bus ride of an hour each day, with the Jerusalem Avenue district paying the transportation. The district's \$22,000 budget is being severely strained.

Voters recently approved a \$14,000 loan to tide the board of education over until next year's budget is passed, and as soon as possible a new school will be built.

RESEARCH

Studies Opinion Manipulation

DETROIT.—Study of public opinion and opinion manipulation is a research project being conducted by Alfred M. Lee, on leave from his chairmanship of the sociology department at Wayne University. The study is being financed by a grant from the Marshall Field Foundation.

Consolidate Research on Tests

NEW YORK.—A new centralized agency has been formed to improve educational tests and conduct research,

with Henry Chauncey, director of the College Entrance Examination Board, as president, and James B. Conant, president of Harvard University, as chairman. The new organization merges the testing activities of three leading nonprofit agencies: the American Council on Education, the College Entrance Examination Board and the Carnegie Foundation for the Advancement of Teaching.

Will Books Be Supplanted?

CAMBRIDGE, MASS.—The Massachusetts Institute of Technology has established a center for scientific aids to learning which it believes will ultimately supplant books as the primary medium for the storage and dissemination of knowledge. The Carnegie Corporation of New York has granted M.I.T. \$100,000 for the purpose of studying methods of collecting, organizing and communicating knowledge. Research and experimentation in various technics, including motion pictures, microphotography, television and mechanical selection systems, will be carried on.

TEACHER TRAINING

Physics Fellowships Offered

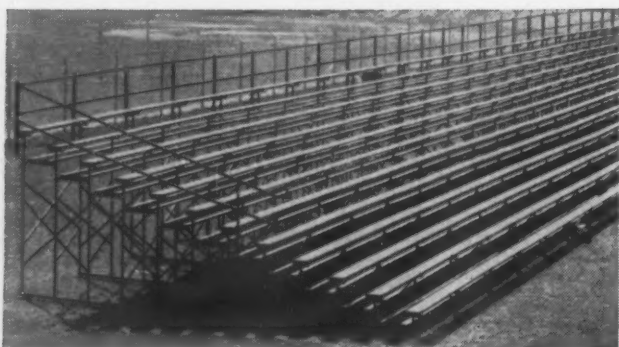
CLEVELAND.—Case Institute of Technology will again offer 50 General Electric fellowships for high school and preparatory school teachers of physics for a six weeks' course during the summer. The fellowships include all tuition fees, room and board and travel expenses. Teachers of physics from the following states are eligible to apply: Ohio, Michigan, Western Pennsylvania, West Virginia, Kentucky, Indiana, Illinois and Wisconsin.

Ed.D. Degree at Utah U.

SALT LAKE CITY, UTAH.—The school of education of the University of Utah now offers the Ed.D. degree designed to provide advanced preparation for persons with superior qualifications for administrative and supervisory positions in public schools. It is to be distinguished from the Ph.D. degree in that the candidate is expected to demonstrate ability to apply his knowledge to practical, professional situations.

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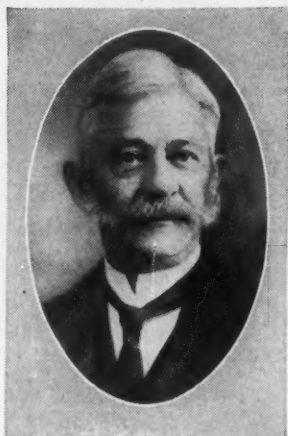
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The American Public is increasingly Health Conscious

In recent years Federal and State Governments have launched elaborate Health Programs.

Special attention has been focused on the subject both in and out of the schools by Doctors, Parents and such organized groups as Parent-Teacher Associations and Women's Clubs.

Public School Officials have been foremost in their desire to Protect the Health of School Children and have appropriated large sums of money for health measures including

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THE BOOK SHELF

Printed publications of interest to school administrators are listed as received.

ADMINISTRATION

Administrative Planning for School Programs and Plants. Proceedings of the Sixteenth Annual Conference for Administrative Officers of Public and Private Schools. Compiled and edited by Dan H. Cooper, assistant professor of education, University of Chicago. Vol. X. University of Chicago Press, Chicago 37. \$2.

Supervision in Selected Secondary Schools. By Allen C. Harmon, 301 E. Moreland Rd., Willow Grove, Pa. Pp. 192. \$3.

Human Relations in the Classroom. Course I. By H. Edmund Bullis and Emily E. O'Malley. Delaware State Society for Mental Hygiene, 1308 Delaware Ave., Wilmington 19, Del. Pp. 222. \$3.

ANNUAL REPORTS

Schools and Community Work Together. 1946-47 annual report for San Diego, Calif. Will C. Crawford, supt. Pp. 37.

Together We Plan. 1946-47 annual report for Battle Creek, Mich. Virgil M. Rogers, supt. Pp. 24.

Education for Life Adjustment. 1946-47 annual report for Milwaukee. Lowell P. Goodrich, supt. Pp. 51.

GUIDANCE

Basic Guidance. Suggestions for Nebraska schools. Edited by Ralph C. Bedell, professor of educational psychology and measurements, University of Nebraska. Prepared under the

HIGHER EDUCATION

Higher Education for American Democracy. Vol. I: "Establishing the Goals." Pp. 103. 40 cents. Vol. II: "Equalizing and Expanding Individual Opportunity." Pp. 69. 35 cents. Report of the President's Commission on Higher Education. U.S. Government Printing Office, Washington 25, D.C.

Use of Tests in College. American Council on Education Studies, Series VI, No. 9, Student Personnel Work. American Council on Education, 744 Jackson Pl., Washington 6, D.C. Pp. 96. \$1.

College-Age Population Study, 1947-64. Arizona, California, Nevada, Oregon and Washington. By Pacific Coast Committee of the American Council on Education. Series I, No. 29, Reports of Committees and Conferences. American Council on Education, 744 Jackson Pl., Washington 6, D.C. Pp. 36. 50 cents.

PHYSICAL EDUCATION

A Guide for Planning Facilities for Athletics, Recreation, Physical and Health Education. Published for the National Facilities Conference by The Athletic Institute, 209 S. State St., Chicago 4. Pp. 127. \$1.50.

SURVEYS

Colorado Rural Teachers — Their Living and Working Conditions. Report of survey made by Colorado Association of School Boards in 1946 by Calvin Grieder, professor of school administration, University of Colorado, and secretary-treasurer, Colorado Association of School Boards; and Stephen V. Ballou, graduate fellow in the University of Colorado College of Education. Colorado Association of School Boards, University of Colorado, Boulder, Colo.

Five Year Community High Schools of Atlanta. Curriculum study made at direction of Atlanta, Ga., Board of Education by Kenneth R. Williams, director, educational advisory staff, Air University, Maxwell Field, Ala. Ira Jarrell, supt. Pp. 46.

TEACHING AIDS

Study Guide for Individual and Class Program for Children of "Lowered Vitality." Curriculum Bulletin No. 7, 1946-47 series. Board of Education of the City of New York, 110 Livingston St., Brooklyn 2, N.Y. Pp. 54.

Your Region's Resources. An annotated bibliography of Southern resources. Compiled by Mary Ann Tanksley. Regional Materials Service, George Peabody College for Teachers, Nashville, Tenn. Pp. 149. 25 cents.

VOCATIONAL

Vocational Education in Action. Prepared by vocational education staff, California State Department of Education, Sacramento 14, Calif. Pp. 48.

YEARBOOKS

Organizing the Elementary School for Living and Learning. 1947 yearbook, Association for Supervision and Curriculum Development, N.E.A., 1201 Sixteenth Street, N.W., Washington 6, D.C. Pp. 211. \$2.25.

Education in Transition. Schoolmen's Week proceedings, joint meeting of southeastern convention district of the Pennsylvania State Education Association. Bulletin No. 29, June 1947. University of Pennsylvania, 3446 Walnut Street, Philadelphia 4. Pp. 355.

OF GENERAL INTEREST

International Relations Clubs. UNESCO booklet describes how international relations clubs can be set up and outlines the work they can do for instruction of members and giving of help to war-devastated countries. Published in English and French. Limited number free. Miss Monica Luffman, education section, UNESCO, 19 Avenue Kleber, Paris, 16.

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1947 BROADWAY, NEW YORK 22, N. Y.

Names in the News . . .

(Continued From Page 32.)

Allegany, Pa., has been named principal of the senior high school.

Maurice Jessup, principal at Victor, Colo., before entering the armed forces, is now principal of the junior high school at Greeley, Colo., succeeding Arley Rost, who has joined the staff of Colorado State College of Education at Greeley.

OTHERS . . .

Roy K. Wilson, assistant director of press and radio relations for the National Education Association, has been granted a leave of absence for six months to serve as manager of a newly organized congressional news service in Washington, D.C. Medora M. Mason, formerly director of public relations of Fairmont State College, Fairmont, W.Va., will take over Mr. Wilson's duties at the N.E.A.

Helen Dwight Reid has been appointed chief of the European section of the division of international educational relations of the U.S. Office of Education. For the last three years Dr. Reid has directed a national program of the American Association of University Women aimed at international understanding. She has served as lec-

turer in politics at Bryn Mawr College and as associate professor of history and government at the University of Buffalo.

Herbert S. Mitchell, whose resignation from the school system of Dearborn, Mich., was reported in the January issue, is now business manager for the public schools of San Bernardino, Calif.

DEATHS . . .

Walter Potts, superintendent of schools at East St. Louis, Ill., for forty-seven years and a past president of the Illinois Teachers Association, died recently at the age of 77.

Albert Alison Reed, professor emeritus of secondary education at the University of Nebraska and director emeritus of the university's extension division, died recently at the age of 81. Dr. Reed had been a leader in Nebraska educational circles for more than forty years and was a member of, and had held office in, numerous national and local education organizations.

Ernest Pitman, principal of Richmond Junior High School, Danvers, Mass., since 1927, died recently at the age of 56.

Smith Burnham, professor of history at Western Michigan College at Kalamazoo, Mich., until his retirement in 1939, died recently at the age of 81. He

had been associated with the Michigan college since 1919 and before that had been a teacher at Albion, Mich., and was with the Teachers' College at West Chester, Pa., for twenty years.

H. P. Long, principal of the high school at Freeland, Pa., died recently of a heart attack. George Feissner, vice principal, has been named his successor.

John E. Wellwood, who retired from the principalship of Flint Central High School, Flint, Mich., in 1944, died recently while attending a banquet in honor of the high school football team. He had served in the Flint schools since 1907 and was 64 years of age.

Garrett E. Rickard, principal of the La Fayette Elementary School in Chicago, died recently. He was 58 years old.

Herschel A. Morgan, high school principal at Royerton, Ind., died recently at the age of 50.

Paul Monroe, professor emeritus of education at Teachers College, Columbia University, died recently at the age of 79.

In the January issue the name of the late George Robert Henderson Nicholson was erroneously stated as George Robert Henderson. Mr. Nicholson, who was founder and headmaster of the Kingswood School for Boys at West Hartford, Conn., died recently at the age of 62.

TIP TO
LUNCHROOM
MANAGERS



Save Meat-Shrinkage by Slow-Roasting
at 300° F. and still get

**RICH BROWN COLOR
IN ROAST AND GRAVY**



DON'T let those precious roasts shrink and shrivel away under high oven heat. *Slow-roast* them and cut down meat-shrinkage. You'll find a roast actually yields *five* servings for every four that you would get if it were roasted the former high-temperature way. There's greater retention of nutritive values, too.

—here's all you do
to add rich brown color

Just brush the meat, before roasting, with Kitchen Bouquet and it will come out of the oven with a luscious, rich brown

crust. Be sure to add Kitchen Bouquet to the gravy, too, for rich brown, appetizing color and stepped-up flavor.

**Made of garden-fresh vegetables,
herbs and spices**

Kitchen Bouquet contains no artificial flavorings to "smother" food flavor, but brings out—enhances—the true rich taste of the meat. Works wonders with inexpensive stews, meat loaves and casserole dishes. Just *try* Kitchen Bouquet and you'll never be without it. Send today for generous Free Offer below.

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SUPREMACY IN CHINA



PRIZE WINNING SCHOOL DESIGN. Franklin, Kump and Falk, Architects, designed the White Oaks School, San Carlos, California, shown here. *Progressive Architecture Magazine* give it the top award in 1946 for "sound progress in design, non-residential class." The exterior is stucco (light buff) and wood (white). Tile-Tex Asphalt Tile is marbled brown, installed by Mallot and Peterson, San Francisco.

Look what's happened to the Little Red Schoolhouse!

No doubt about it—the little red schoolhouse has really grown up! Take this modern elementary school. It was expressly designed to furnish students and teachers with a maximum of light, both artificial and natural . . . plenty of fresh air, without harmful drafts . . . a functional arrangement of work, play and storage space. Naturally, it's built to take the punishment meted out by class after class of growing youngsters.

The floors, for instance, are tough, durable Tile-Tex* Asphalt Tile. It's

almost impossible to conceive of a schoolhouse of youngsters active enough to wear out a Tile-Tex floor. And regardless of the dirt and mud students track in, custodial employees can keep this top quality asphalt tile looking neat as a pin, with little effort!

Ask your architect to tell you how Tile-Tex can provide your school with colorful, long-wearing, low-cost floors . . . how it can be used with safety over concrete floors in direct contact with the earth. (In the White Oaks School,

copper piping in concrete floor slabs provide efficient radiant heating. Tile-Tex is installed directly over the concrete slab . . . provides a warm comfortable floor.)

☆ ☆ ☆

Write for free, descriptive literature and the name of the nearest Tile-Tex flooring contractor. The Tile-Tex Company, Inc. (subsidiary of The Flintkote Company), Chicago Heights, Illinois. Sales offices located in Chicago, New York, Los Angeles and New Orleans.



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AUTOMATIC CLOTHES DRYER

LABORATORY EQUIPMENT

Stop in at Booths B-4 and B-6 at the N.E.A. Atlantic City convention February 21-26, 1948.

See the Automatic Clothes Dryer



Here is important news for home economics instructors! The new Hamilton Automatic Clothes Dryer will be on display at Atlantic City.

It completes the modern sequence-type laundry. Clothes from the wringer or spinner are tossed into the Hamilton Dryer. In only a few minutes, these clothes are dry, ready for ironing. And they are just right for ironing—no further dampening or sprinkling is needed.

Ideal for up-to-date Home Economics departments. Useful, too, for drying dish towels, and bathing and athletic equipment.

See Hamilton Laboratory Equipment

Hamilton standard equipment for the chemistry, biology and science rooms still leads the field—it is a must on your convention list of exhibits!

Whether your plans call for wood or steel equipment, investigate Hamilton. For Hamilton's modern production facilities are equipped for both wood and steel manufacture.

With the production situation improving, we can promise delivery of stock standard items just 3 to 4 months after receipt of order. It is time, therefore, to place orders now for fall delivery.

A reprint of the No. 209 Hamilton catalog is now being prepared. A new section of the catalog is devoted to planning a "custombuilt" laboratory by using standard units. Write to Hamilton today and reserve your copy of this revised edition.



The Hamilton exhibit is at Booths B-4 and B-6 of the A.A.S.A.-N.E.A. meeting, Atlantic City, New Jersey, February 21-26, 1948.

HAMILTON MANUFACTURING COMPANY • TWO RIVERS WISCONSIN

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- **MINIMUM AIR INFILTRATION**, because of non-metallic weather stripping and serrated guides
- **FINGERTIP CONTROL**
- **NO WARP, ROT, RATTLE**, stick or swell, ever
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Expertly designed for a lifetime of service, Adlake Aluminum Windows bring lasting beauty to *any* building, modern or traditional. Built of lustrous aluminum, they do away with the cost of painting and maintenance. You install them, you forget them! They look lovely and operate smoothly for years and years.

Only Adlake Windows combine woven-pile weather stripping and serrated guides to assure a minimum air infiltration and absolute fingertip control. And because of their construction (see diagram), Adlake Windows never warp, rot, rattle, stick or swell. Installation is phenomenally easy—you can complete all exterior work first and then simply set the window in place!

Truly, Adlake Aluminum Windows fulfill your every requirement for appearance and service. If you plan to build or remodel, why not drop us a post card today for complete data? Address: 1104 N. Michigan, Elkhart, Ind. No obligation, of course.



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SPECIFICATION DH-A1

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An equivalent of this window has been examined by PITTSBURGH TESTING LABORATORY; conforms in Materials, Construction, Strength of Sections and Air infiltration requirements to ALUMINUM WINDOW MANUFACTURERS ASSOCIATION Specification DH-A1

SPECIFICATION DH-A1

SEAL



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CLEANSERS

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How A Single Source of Supply Aids Economy in Floor Care

It's convenient to buy floor-maintenance equipment and related products from one source, but a single source of supply such as *Finnell* offers many more advantages. Serving all industries, *Finnell* makes equipment for every type of floor care . . . for all floors . . . all areas. From the *Finnell* line you can choose the equipment that provides the maximum coverage for your particular floors—whether maintenance calls for wet scrubbing, dry scrubbing, or dry cleaning . . . or for waxing or polishing.

Finnell also makes a full line of *Cleansers* specially developed for the greater speed of mechanical-scrubbing. The cleaning action of *Finnell* *Cleansers* keeps pace with the speed of the machine. This cuts operating time, which in turn reduces labor costs and saves on brushes.



In waxing, too, co-ordinated economy can be effected, by doing the job mechanically with a portable *Finnell* and *Finnell-Kote*, the solid wax that's applied hot. This process produces a finish unique in wearing and protective qualities, and hence is more economical on a year-to-year cost basis.

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* * * *

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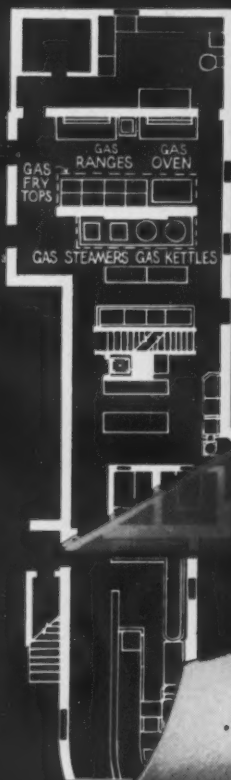
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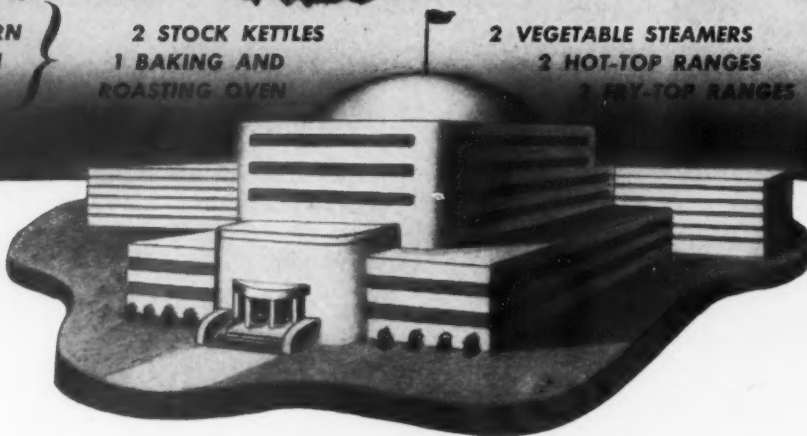
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Most important of all, they're extra nourishing and have the lure of "home-cookin'" flavor that appeals to all appetites. Your Heinz Man will gladly show you the Cost and Portions Chart.

Write for FREE recipe book, "Quantity Recipes Using Heinz Condensed Soups". Address Hotel and Restaurant Division, H. J. Heinz Company, Pittsburgh 30, Pa.

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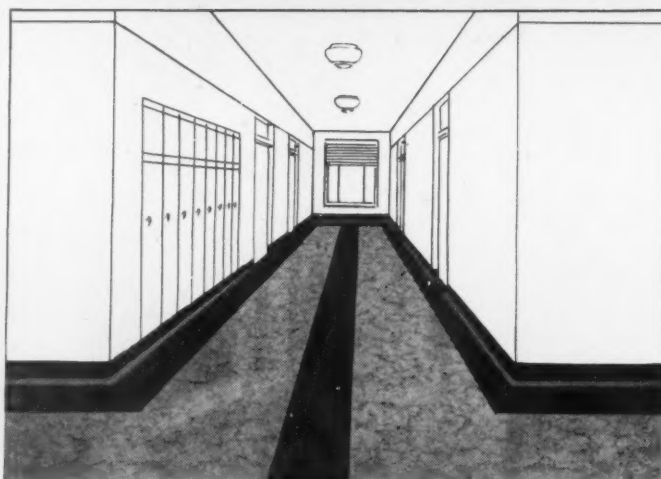
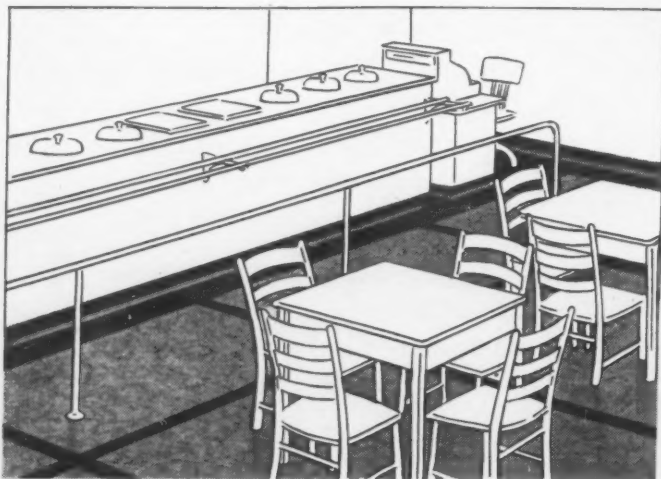
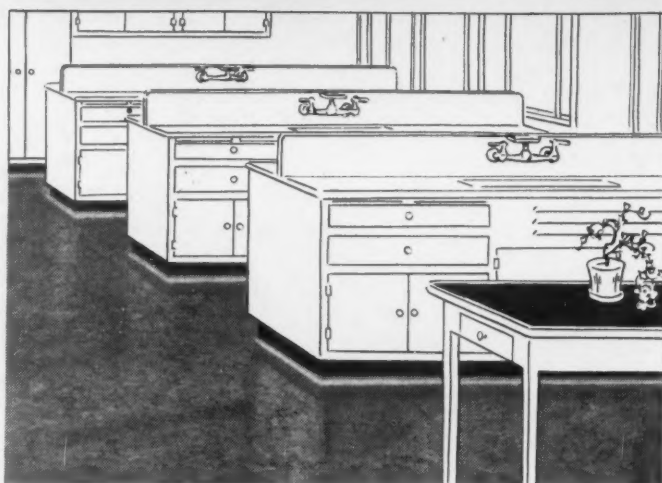
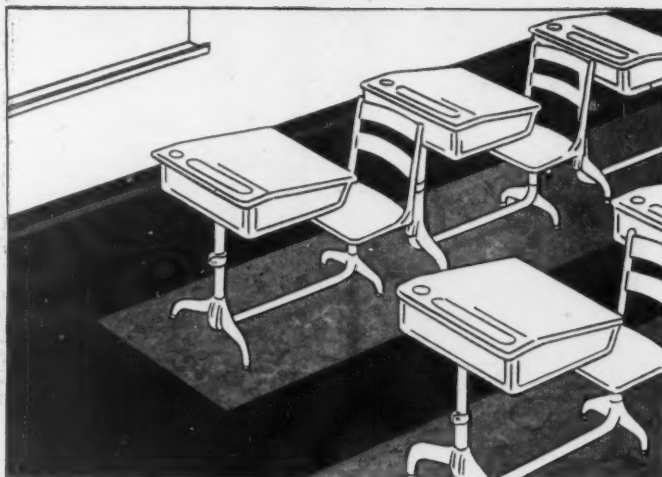
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Classrooms, lecture halls, labs, and corridors can be given an up-to-date look with new custom-designed floors of Armstrong's Linoleum. This versatile flooring is made in a wide range of colors and patterns which gives you almost unlimited opportunities to create unusual but practical floor designs for every classroom. Illustrated here are some of the possibilities offered by Armstrong's Linoleum.

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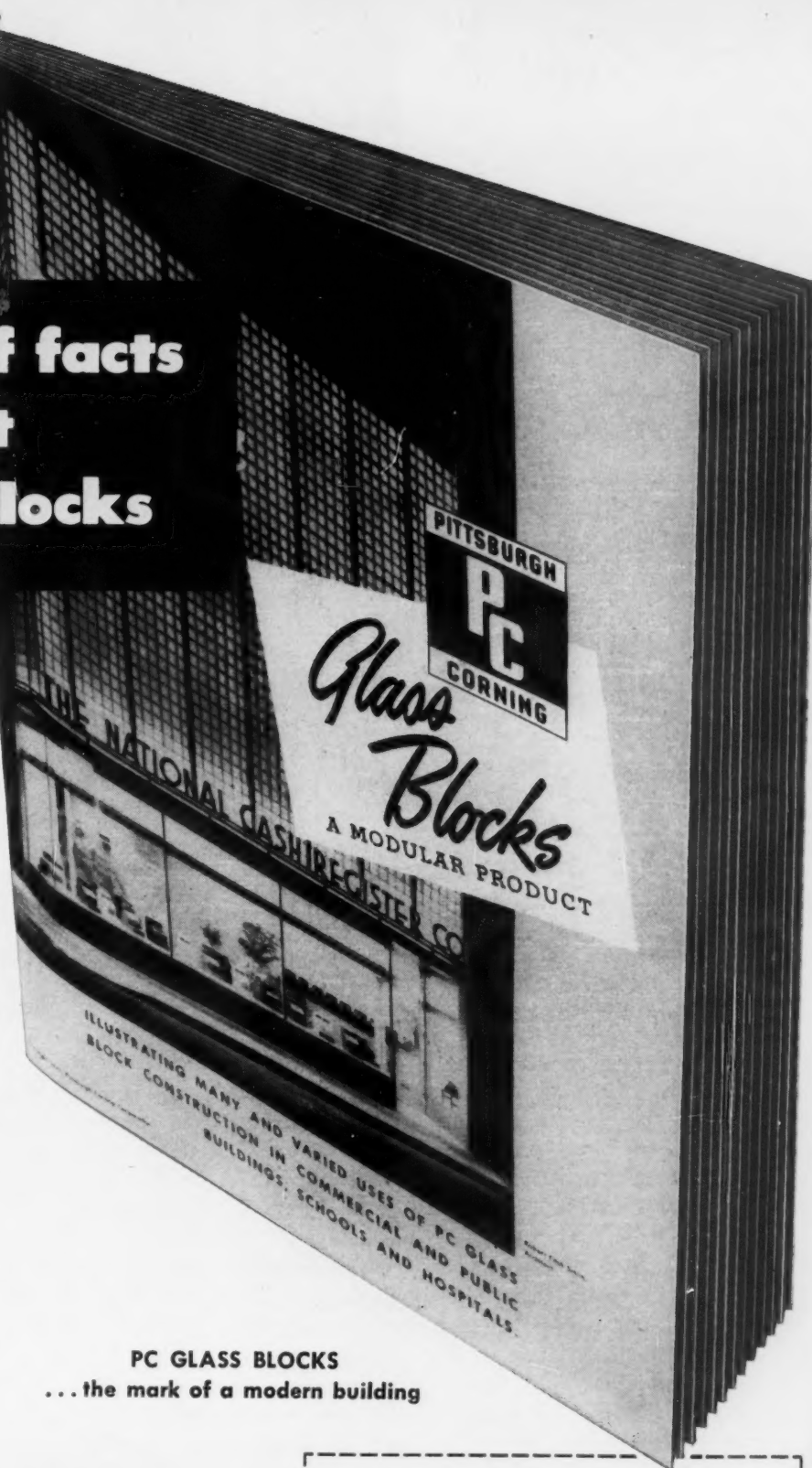
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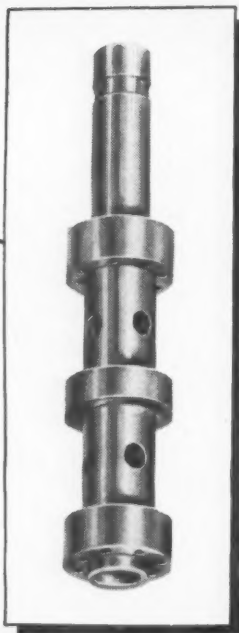
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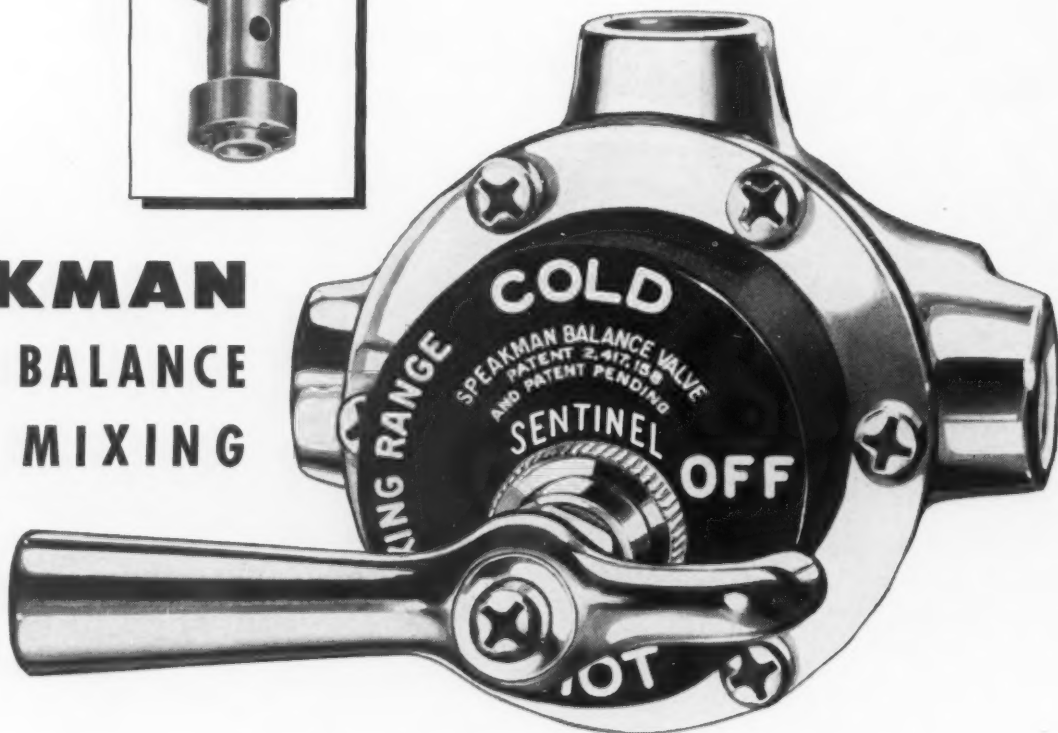
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SPEAKMAN SENTINEL BALANCE SHOWER MIXING VALVE



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The f-l-o-a-t-i-n-g *Sentinel* has no thermostats, rockers, springs, or other gadgets likely to get out of order. It works on water pressure alone! If excessive alkali ever coats the f-l-o-a-t-i-n-g *Sentinel*, it can be cleaned readily by merely shutting off the *Sentinel* valve. . . it is not necessary to shut off the Hot and Cold supply to the *Sentinel* Shower Valve. This is a great help where shut-off valves may be located at some distant point and perhaps control the whole bathroom.

We'd be pleased to send you complete detailed information on this new safety *Sentinel Balance Mixing Valve*. Write to Department BV.

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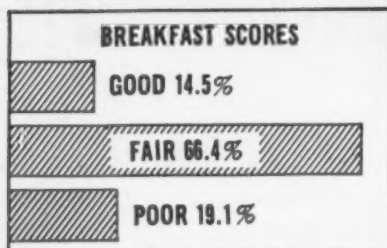


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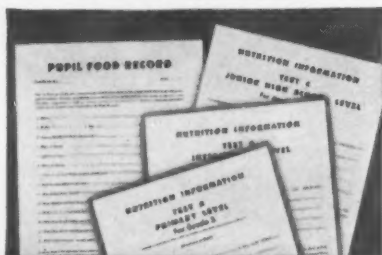


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MATERIALS ARE FREE



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Count them . . . no capital letter for "I", breakfast misspelled . . . but wait! Even after you catch the obvious mistakes, mightn't there still be one important error, not so easy to detect?

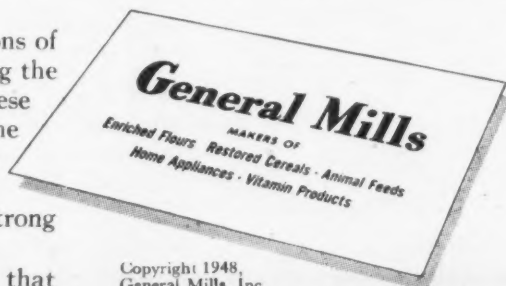
Can you tell, for instance, whether the breakfast this youngster ate was really a "good" breakfast? Did it include such foods as fruit—cereal—milk—bread or toast—butter or fortified margarine—eggs? And how did this breakfast fit into the rest of his daily diet?

Alert teachers in all sections of the country are today seeking the answers to questions like these—and using the answers as the basis for programs for diet improvement. The ultimate goal: to build keen minds in strong bodies.

To help teachers reach that

goal, General Mills has set up a "Program of Assistance in Nutrition and Health Education." Authoritative materials prepared by leading educators and health workers and a consultation service are available to *you* through this program.

If you would like information on how to adapt a nutrition program to your curriculum, please write: Education Section, Public Service Department, General Mills, Minneapolis 1, Minnesota.



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40 cu. ft. Reach-In Model. DuPont, DuLux two-tone exterior finish. Self-contained refrigeration. Also available in 60 cu. ft. size.

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THE NATION'S SCHOOLS

Memorandum —

To — Our Readers

From — A.H.R.

Once again the March issue of **THE NATION'S SCHOOLS** will carry the convention report. We hope to have it on your desk soon after you return home with the most comprehensive coverage we have ever attempted of an A.A.S.A. convention — more pictures, too!

Hope you will have time to stop at Booth G-7 during the convention. We want to know more about your interests and problems and how we can help you.

March issue also will have the results of the School Opinion Poll just completed on the question, "Has the morale of the teaching profession improved during the past twelve months and if so, what have been the contributing factors?"

Don't forget to look in the big April issue of **THE NATION'S SCHOOLS** for the new portfolio on "Artificial Lighting for Schools."

Arthur H. Rice
Managing Editor

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and adopted FIRST in SUPERIOR
All-Steel Safety School Coaches



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| ✓ 4. Dust-proof construction throughout with proper insulation against heat, cold, fumes, rumble and window "fogging." | ✓ 13. Safety tread in entrance stepwell. | ✓ 22. Double-strength applied rub rails (instead of pressed-in). |
| ✓ 5. Crown shaped roof for greater strength. | ✓ 14. Concealed wiring-in-conduit, properly fastened to frame. | ✓ 23. Six inch heavy-duty chassis-attached rear bumper. |
| ✓ 6. Chassis frame extended to rear of body. | ✓ 15. Grab handle at entrance door. | ✓ 24. Complete underbody insulation. |
| ✓ 7. Full-slanting V-type windshield with narrow pillars for better vision. | ✓ 16. Full-height stanchion at entrance door. | ✓ 25. Side body pillar at each seat, every 27½ inches. |
| ✓ 8. Triple-sealed, leak-proof windshield construction. | ✓ 17. Gas tank protectively mounted outside coach. | ✓ 26. Standardized lighting—including dome lights standard, front and rear marker lamps, and 2 front and 2 rear combination flasher-type stop and warning lights. |
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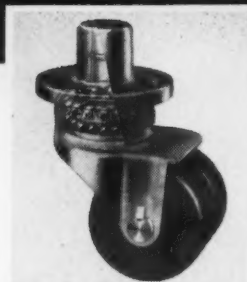
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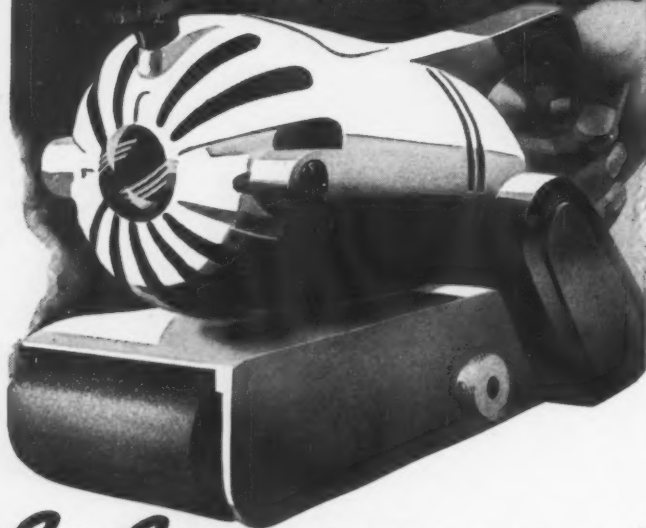
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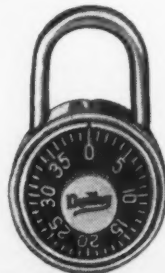
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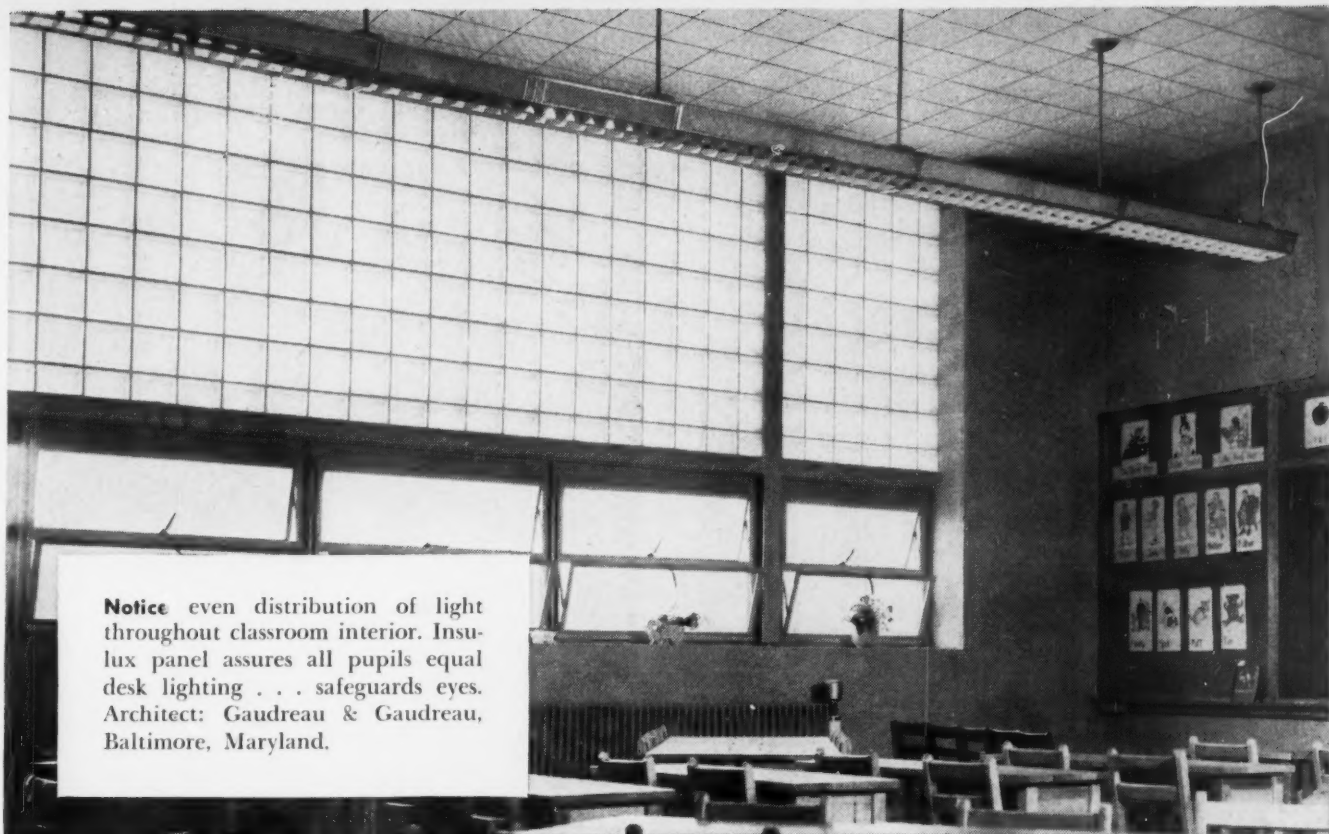
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Maryland school designed for best use of daylight

STUDY and play rooms of the Loch Raven School, Baltimore, Maryland, follow the progressive trend in school design—they are daylighted to achieve the most uniform light distribution and the lowest possible brightness contrasts. This is accomplished with Insulux Prismatic Glass Block—hollow block faced inside with two banks of horizontal prisms.

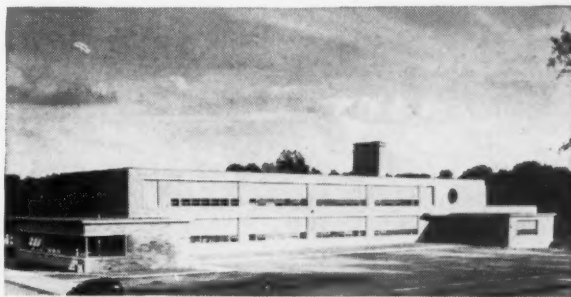
Panels of this functional block bend light upward. The brightest beam emerges between 7 and 27 degrees above the horizontal even though the sun may be at any altitude from zero to 70 degrees—even on cloudy days when there is no sun.

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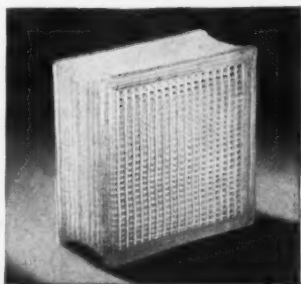
Write for free Daylighting Manual

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Unique design of Loch Raven School in Baltimore utilizes Insulux Glass Block to add light and gracefulness. Contractor: John K. Ruff Co., Baltimore, Md.



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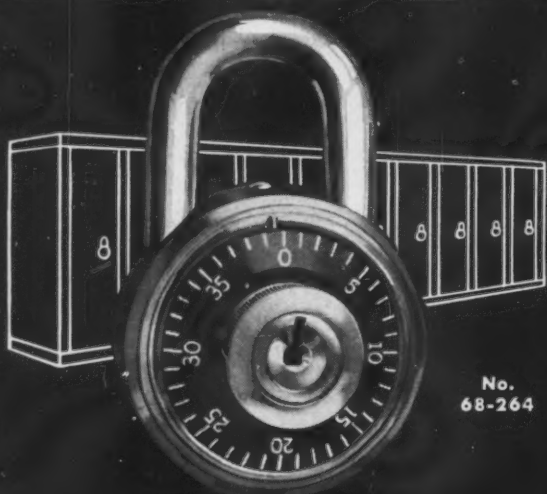
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NO. 264 MASTERKEYED SELF-LOCKING SHACKLE LOCK

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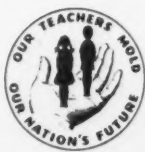
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Features New Functional Design and New Belt Drive**

The clean functional lines of the new Trane Unit Ventilator tell the story of this extraordinary new unit. As an example, added decorations might catch on children's hands or clothing — so there are none on the new Trane Unit Ventilator. This shows thoughtful planning and careful engineering — typical of every part of this new model.

Inside, a belt drive eliminates the usual servicing problem — the motor is standard. There are new developments in the famed Trane directional Free-Flo Grille.

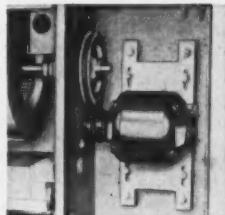
Other features of the new Trane Unit Ventilator . . . fan housings that remove readily for cleaning . . . larger, non-freezing coils that heat uniformly, end-to-end . . . fresh air damper that will not freeze up . . . optional anodized aluminum wall inlet box and grille that can't corrode and stain buildings . . . positive block-off to prevent outside air from blowing into the room . . . large, slow-speed fans for quiet, dependable operation. The new Trane Unit Ventilator is available in four sizes, finished in dark brown, green, or tan baked enamel. Models with square or rounded corners. Write The Trane Company, La Crosse, Wisconsin for information and the location of the nearest of the 85 Trane Sales Offices.

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A foremost industrial designer planned this attractive new cabinet to fit unobtrusively into modern classrooms — not to dominate them. The sturdy steel panels are designed so that one man can remove or replace them.

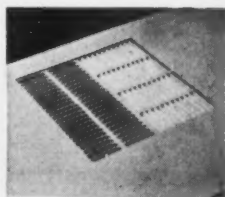
NEW BELT DRIVE

A variable pulley in the new belt drive allows speed flexibility, but banishes the motor problem — the standard motor can be replaced anywhere. Another service problem, the shaft coupling, is gone forever from these Trane units.



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This new version of the Trane directional Free-Flo Grille now does an even better job of providing draftless circulation. It has strength to resist even willful damage, and is designed so that pencils can't drop through it.



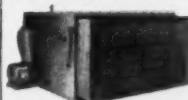
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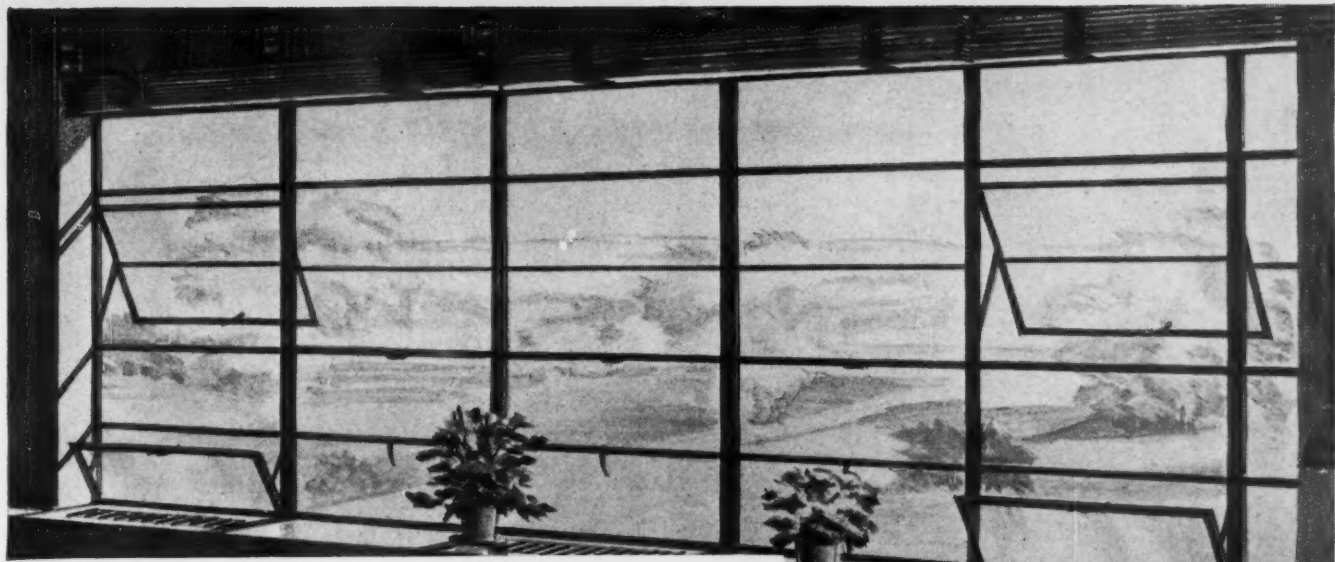
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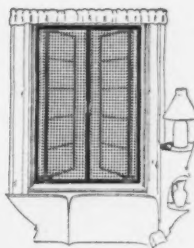
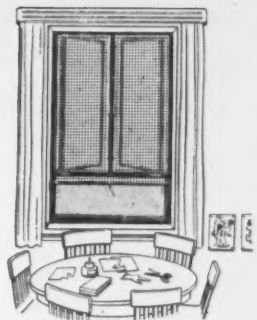
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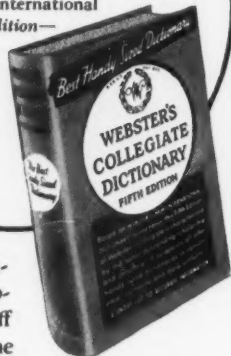
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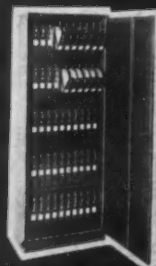
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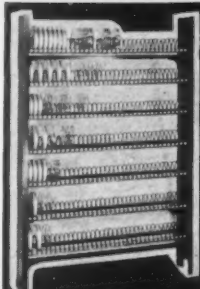
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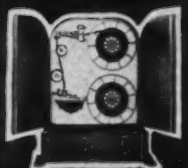
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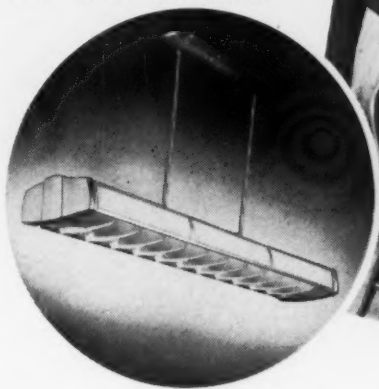
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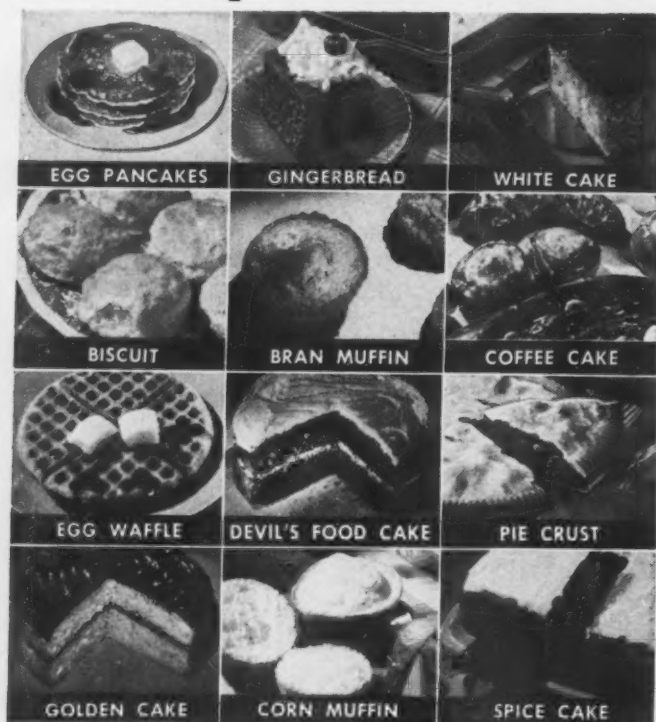
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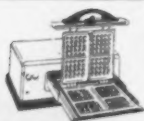
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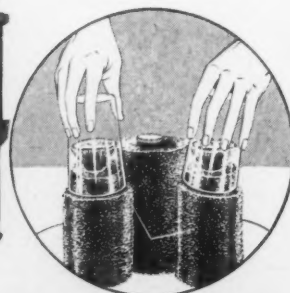
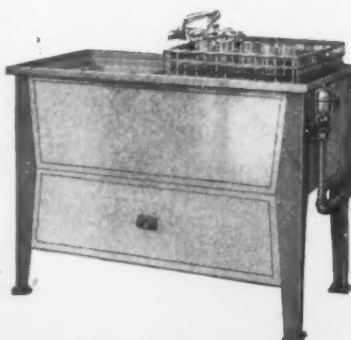
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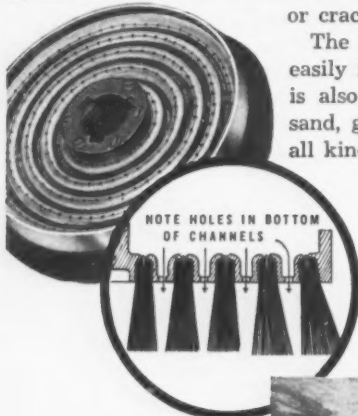
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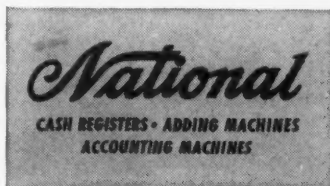
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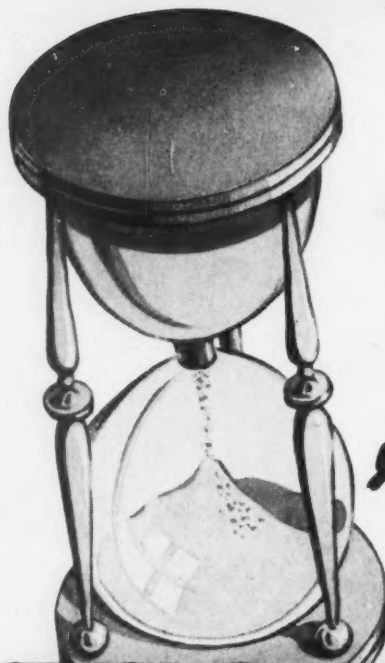
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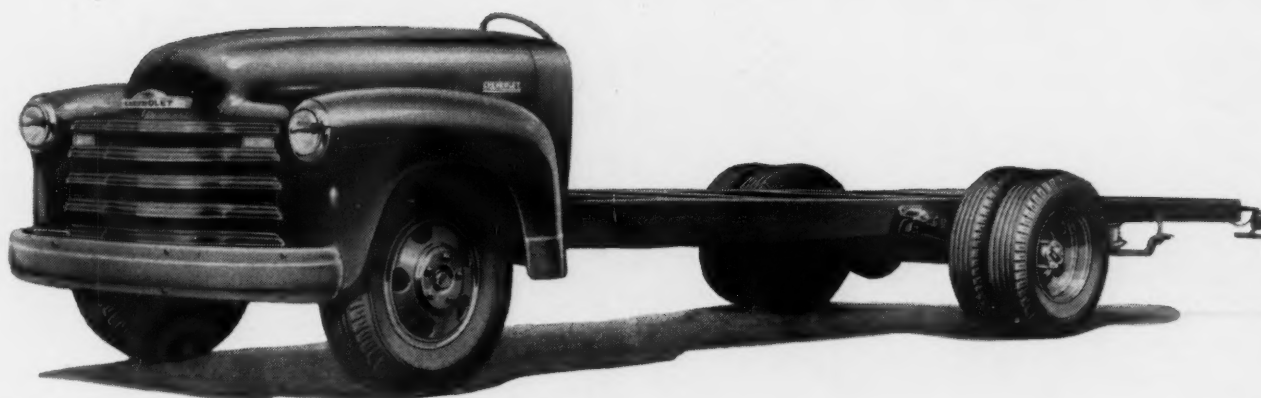
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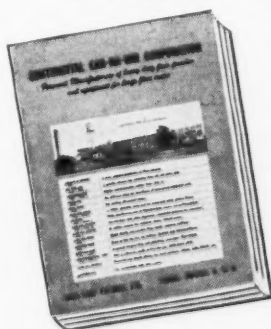
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Removes up to 80% more dirt!*

For both wet and dry pick-up... adaptable for blowing.

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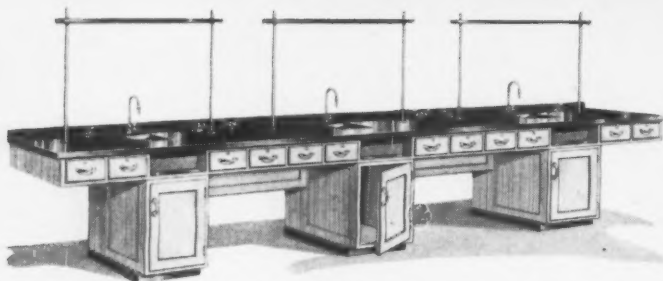
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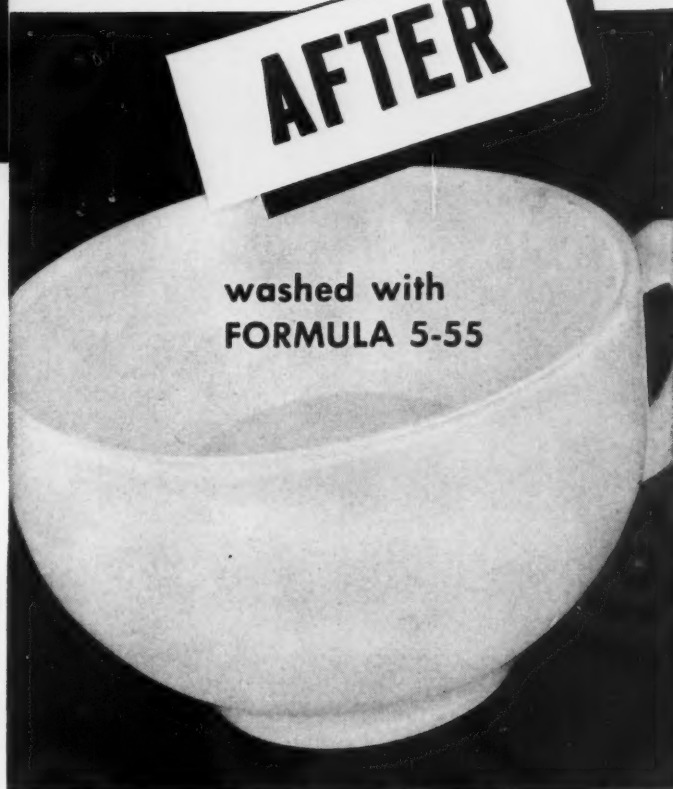
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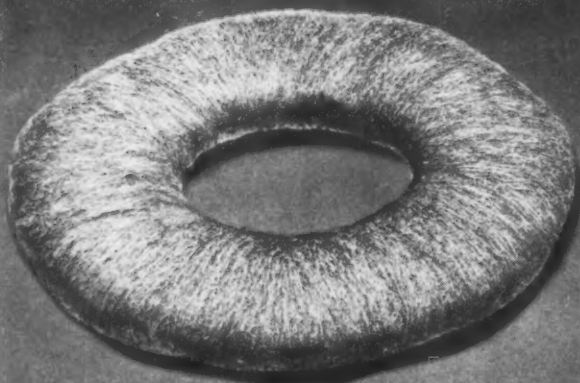
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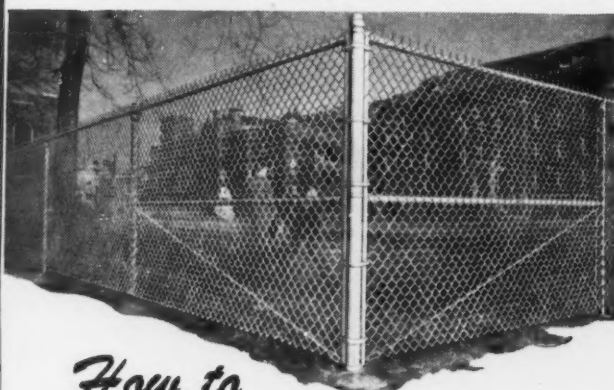
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The NATION'S SCHOOLS



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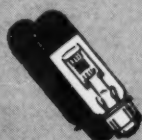
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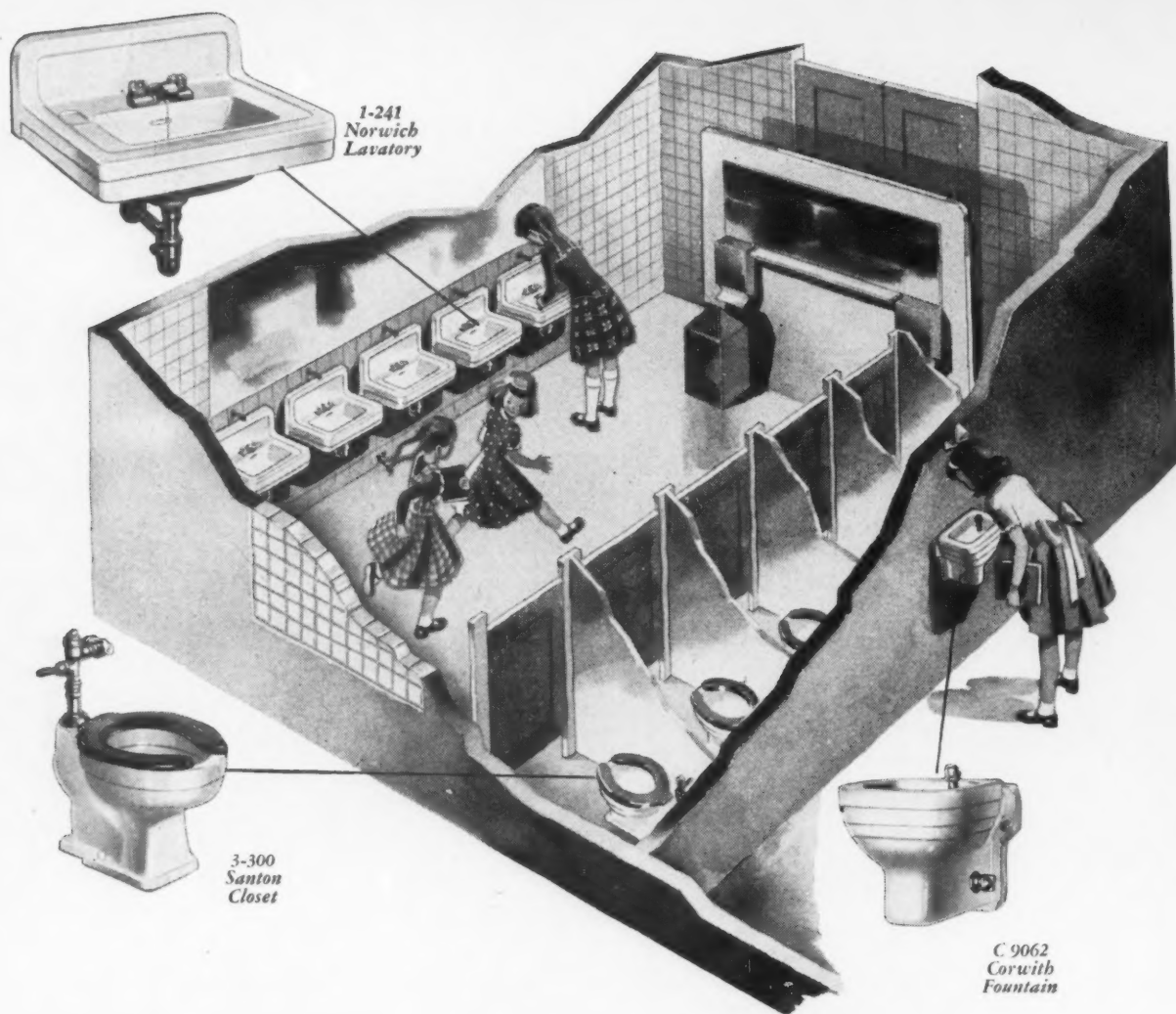
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What's New **FOR SCHOOLS**

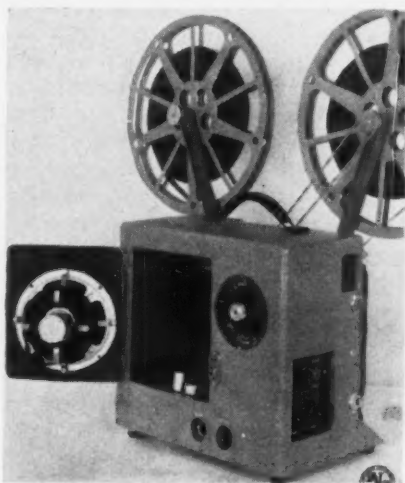
FEBRUARY 1948

Edited by BESSIE COVERT

TO HELP YOU get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 144. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. The NATION'S SCHOOLS will send your request to the manufacturer. If you wish other product information, just write us and we shall make every effort to supply it.

DeVry "Bantam" Projector

The new DeVry "Bantam" 16 mm. sound or silent projector incorporates



projection mechanism, sound-head, amplifier, speaker and screen all in one compact case, the complete unit weighing less than 31 pounds. It is designed with adequate illumination for either classroom or auditorium use. Lenses coated with magnesium fluoride reduce internal reflection and increase light transmission, resulting in added brilliance, clarity and contrast in projected pictures. The sound filtering system eliminates disturbances caused by flutter, splices or curled film.

Operation of the new projector is simple so that even an inexperienced teacher or student can set it up and have it ready for sound projection in a matter of minutes. The DeVry Automatic Loop Setter, which permits resetting of the lower loop without damage to the film, is incorporated in the new unit. Other features of the "Bantam" include all controls on one illuminated panel, 2000 foot film capacity, cool operation, one point lubrication, dependable drive motor, safe motor rewinding of film without changing reels, side tension control at aperture and quiet operation. The speaker is a 6 inch Alnico 5 permanent magnet type which may be used attached to the projector in carrying position, open with speaker grille facing the audience, or at the screen, for which a cable is furnished. De Vry Corp., Dept. NS, 1111 Armitage Ave., Chicago 14. (Key No. 780)

Electric Ranges for Home Economics Units

The new Hotpoint Masterpiece electric range has several engineering refinements which should make it of interest to those responsible for home making courses. Its new streamlined design makes it attractive in appearance while its sealed heat oven, faster heating and cooling action and completely automatic operation make it interesting from a teaching standpoint. The new model provides 33 per cent more surface cooking capacity and the automatic temperature controls range from 150 to 550 degrees.

Other features of the new range include a 7 quart cooker with heating unit designed for lifting to the top as a fourth cooking unit, automatic lights to show heat position on top units, automatic white oven signal light, fluorescent light on the backsplash, a broiler designed for speed cookery, a warmer drawer and large storage drawers. The range should be of interest for teaching and particularly in those areas where electricity is the principal source of heat and power. Hotpoint, Inc., Dept. NS, 5600 W. Taylor St., Chicago 44. (Key No. 781)

Trane Unit Ventilator

The new Trane Unit Ventilator not only is new as to cabinet design but also has been completely redesigned as to engineering and mechanical principles. The cabinet, designed by Brooks Stevens, industrial designer, has rounded corners and straight lines which make it unobtrusively attractive as well as easy to keep clean. It is sturdily constructed of heavy furniture steel, reinforced throughout, and finished in enamel. A scuff plate runs across the entire front of the unit as a protection against scratching.

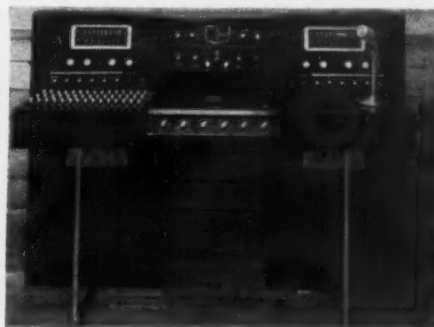
The new resilient belt drive mechanism, mounted in rubber at all points of stress, permits the use of standard motors, thus assuring trouble-free operation. The heating element has also been improved and fans have been redesigned for greater smoothness and silence in operation. For ease of maintenance, the cabinet fronts consist of three easily removed panels, fastened to the unit by cam loc's. Re-

movable panels are also provided on the fan scrolls and a new removable louver assembly is now part of the wall intake box simplifying installation as well as maintenance and cleaning. The new unit has been redesigned throughout for simplicity and increased efficiency. The Trane Company, Dept. NS, La Crosse, Wis. (Key No. 782)

Operadio "Program Master"

The new Operadio "Program Master" is a central sound control system which operates through loud-speaker outlets in selected areas. It has a dual channel sound control system; thus two programs may be transmitted simultaneously to different rooms or groups of rooms and an optional intercommunication panel permits two-way conversations with selected rooms without interference with the program channels. Designed for systems requiring from 45 to 90 loud-speaker outlets, the unit utilizes a high fidelity 50 watt amplifier for each channel.

The standard Program Master "60" incorporates one AM-FM radio, a dual speed transcription player, 60 switches for room selection, two 50 watt amplifiers, two "Program Selector" panels, a "Control" panel, a microphone and is provided with six inputs. An emergency switch permits the connecting of all speakers instantaneously, regardless of programs in operation. The unit is housed in an all-metal console finished in mahogany brown and is 61 inches



wide, 21½ inches deep and 43 inches high. Operadio Manufacturing Co., Dept. NS, St. Charles, Ill. (Key No. 783)

Yale Compact Door Closer

The new Yale Compact Door Closer is the result of new precision tools and machinery and new types of measuring devices which made possible radical



changes in surface door-closer design, construction and operation. The new closer is small in size, simple in design and because of the elimination of the bulges at the base is known as Yale's "Hipless" Compact Door Closer.

Improvements in operating structure include a 180 degree checking range which keeps the door always under control by means of a rotary piston but contains only one moving part; the powerful-flat-ribbon clock-type spring, aided by the leverage of the arms, which automatically closes the door; the rotary piston turning on the axis of the shaft against the checking oil which controls the door throughout the full closing swing and the regulation of the closing speed by the flow of oil through the ports of a dual valve.

The unit was tested for several years in actual use before all new features were finally adopted and full production planned. The Compact Door Closer offers fully controlled closing, two-speed adjustment, noiseless operation and easy installation. It is leakproof and requires minimum upkeep. Yale & Towne Mfg. Co., Dept. NS, Stamford, Conn. (Key No. 784)

16 mm. Camera

Schools or colleges wishing to make their own motion pictures for teaching or entertainment will be interested in the new Filmo Specialist, semi-professional 16 mm. motion picture camera developed by Bell & Howell. The new camera has professional shift-over focusing, four-lens turret, Viewfinder Parallax adjustment, positive Viewfinders, light-baffled shutter, selective, 3 way power and 400 foot film capacity. It has 7 operating speeds ranging from 8 to 64 frames per second, complete film protection, rewind knob for back-winding the film within the camera, automatic relative exposure

indicator and continuous operation lock. A carrying case for the new camera and its accessories is available as is a semi-professional tripod with case. Bell & Howell Co., Dept. NS, 7100 McCormick Rd., Chicago 45. (Key No. 785)

Masonry Coating

Para-StoneTex is a rubber base masonry coating which is impervious to alkali, the ingredient of concrete which prevents ordinary paint from adhering, and resistant to water. This product, new in technical concept, in use and in treatment of raw materials, forms a protective coating of chlorinated rubber on concrete or other masonry while giving it the desired painted surface. It produces a fine appearing finish, works easily, dries quickly and stays clean. It is available in white and colors. Truscon Laboratories, Dept. NS, Detroit 11, Mich. (Key No. 786)

Empire Sound King Projector

The new Empire Sound King is a 16 mm. projector designed for perfect performance both visibly and audibly. It is light in weight, simple in operation and low in cost. The use of new materials of high tensile strength and the new design which makes the carrying case its own chassis save weight and the advanced engineering principles permit high precision in mass production methods.

The elimination of moving parts achieves simplicity in design and operation. The streamlined threading procedure and fewer moving parts make the Sound King easy on film and the controls are recessed in a single panel. The projector can be used for either sound or silent films. The cases for both speaker and projector are made of aluminum in gray crackle finish and the sturdy hardware accessories are finished in satin chrome. All bearings are sealed in for permanent lubrication. The unit is designed to achieve professional performance in brilliant projected images and high fidelity sound reproduction. Empire Projector Corp., Dept. NS, 60 McLean Ave., Yonkers, N. Y. (Key No. 787)

Portable Refractor

The new Tinsley 3 inch refractor telescope is a portable instrument made of aluminum casting and tubing which makes the weight only 30 pounds. The new model is made on a production basis, thus reducing the cost.

The optical system is corrected for chromatic and spherical aberration. Three eyepieces are included to give a

wide range of powers, low power for terrestrial and cluster observations and high power for planetary and double star work. The tube, cell, mounting and tripod head are of aluminum and the tripod is of hard maple, of sturdy construction. Specifications include objective: achromatic F/15; focal length: 45 inches; mounting: Altazimuth and powers: 45-90-180. Tinsley Laboratories, Inc., Dept. NS, Berkeley 4, Calif. (Key No. 788)

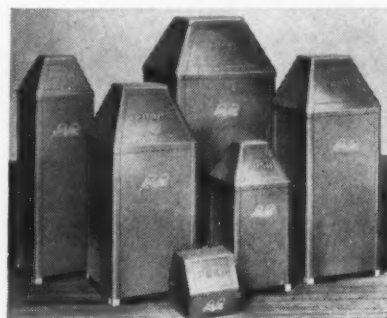
Knight 20 Watt Amplifier

The new Knight 20 watt phono amplifier is especially designed for high fidelity reproduction from phonograph records or AM or FM tuners. Individual bass and treble tone controls are incorporated as is adjustable automatic volume expansion which is independent of volume control setting. It is suitable for all purposes requiring wide range response and should therefore be readily adaptable to program broadcasting in schools. Allied Radio Corp., Dept. NS, 833 W. Jackson Blvd., Chicago 7. (Key No. 789)

Waste Receptacles

Nonrusting, stainless steel feet are now standard equipment on all Bennett Bilt waste receptacles thus eliminating rusting and rust marks on tile, linoleum and other types of flooring. The new feet also keep the receptacle bottom off the floor and enhance the overall appearance.

Fabricated from heavy gauge steel reinforced by rounded corners, the line is of all-welded construction which provides a smooth, unobstructed exterior surface on which clothes cannot catch. The receptacles each have two independently hinged doors, permitting entrance from both sides at the same time.



Heavy tension springs keep the doors closed when not in use thus making the units fireproof and sanitary.

There are eight models for various needs, the two largest being designed and finished especially for outdoor use. All models have the new stainless steel feet. Bennett Mfg. Co., Dept. NS, Alden, N. Y. (Key No. 790)

Model 1A Slide Projector

The Kodaslide Projector Model 1A is a new high-quality, moderate-price 2 by 2 inch slide projector. It is equipped with a 150 watt lamp, a new type of aluminum slide carrier which operates with ease and precision, and a 4 inch Kodak projection Ektanon f/3.5 lens which is lumenized with a new hard-surface magnesium fluoride coating on all air-glass surfaces to increase light transmission and give sharper, brighter images.

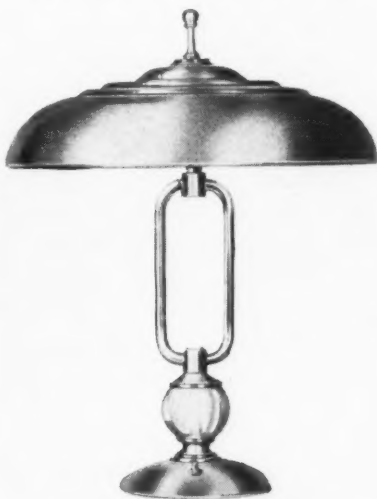
A minimum of light is lost because of the design, and heat is kept at a minimum through the use of a new single-element heat absorbing glass which gives added protection to the transparencies.

The projector is streamlined in appearance and efficient in operation. It is available with or without a carrying case, the latter having a removable base which serves as a support for the projector in use, when placed on top of the case. **Eastman Kodak Co., Dept. NS, Rochester 4, N. Y. (Key No. 791)**

Circline Fluorescent Lamps

Two new desk or end table lamps with 32 watt circline fluorescent bulbs have been announced. Both models are equipped with 90 per cent or better power factor correct ballast, radio condenser and manual starting switch.

Model No. 20101, illustrated, is 19 inches high with a 6 inch diameter base. The shade is 14¾ by 4 inches in size. The lamp is finished in satin chrome and gold. Model No. 20103 is 17 inches high with a 7¼ by 4½ inch base and a shade 14 by 3 inches. It is finished in rippled gray and chrome or electro-



plated statuary bronze and has a removable receptacle which can be used for pen and pencil rest, as a clip or pin dish or as an ash tray. **Faries Manufacturing Company, Dept. NS, Decatur, Ill. (Key No. 792)**

Redesigned Lamp Unit

The Grenadier two lamp semi-direct lighting unit has been redesigned. The improvements include increased shielding of 35 degrees parallel to the lamps and 25 degrees normal to the lamps, removable side panels and louvers for easier maintenance, accessory opaque reflectors or slotted reflectors placed immediately above the lamps for increased downward illumination, heavier gauge metal, whiter plastic side panels and a new finish. **The W. F. Wakefield Brass Co., Dept NS, Vermilion, Ohio. (Key No. 793)**

Turco Nu-Vex

Turco Nu-Vex is a new liquid penetrating seal for protecting all types of wood floors from dirt, grime and wear. It penetrates deep into the wood to seal pores and cells and to form an oil and water resistant surface. It is clear, odorless and transparent and is designed to restore the original appearance of old floors without darkening or staining the wood. It provides a foundation for a permanent glossy sheen when floors are waxed and polished, will not chip, crack or peel, and is designed for floors subjected to heavy traffic. Nu-Vex is easily applied with a brush or a lamb's wool applicator. **Turco Products, Inc., Dept. NS, 6135 S. Central Ave., Los Angeles 1, Calif. (Key No. 794)**

Radiant Heating With Baseboard Panels

The new Baseboard Radiant Panels developed by American-Standard fit snugly against the wall when installed or can be partially recessed, saving additional floor space. Available in two models, a radiant panel, Type "R," and radiant-convactor panel, Type "RC," this heating panel can be installed along one or more sides of a room in place of the wood baseboard.

The panels are 8 inches high, 2 inches thick and made in two lengths, 12 and 24 inches. Panels are constructed with a cast-in supporting lug on either left or right end and a center section which is available without end support. Special valve enclosures and matching corner covers are furnished so that all piping and valves are readily accessible.

Baseboard Radiant Panels are made of smooth finish cast iron and can be painted to match surrounding walls or woodwork. The design is adapted to the addition of regular wood molding at top and bottom of the radiant panel and at top of the radiant-convactor panel. **American Radiator & Standard Sanitary Corp., Dept. NS, Pittsburgh 30, Pa. (Key No. 795)**

Holt Whirlwind Vacuum Cleaner

The new Holt Whirlwind Industrial Vacuum, Model VA 20, for both wet and dry pickup, is designed to meet every



maintenance need. As a dry vacuum it handles all dust and general clean-up problems and is efficient for wet pickup in scrubbing and rug shampoo operations. It has 18 attachments and accessories to cover all needs.

This heavy-duty machine is unusually quiet in operation and has a two-stage fan mounted below the motor to eliminate much of the sound. The unit has three solid rubber casters which give it firm, three-point support on rough or uneven surfaces and make it easily portable. It is quickly adaptable to either suction or blowing and has a 15 gallon tank capacity. It is built of heavy gauge metal, finished in baked, crackle finish with rust and corrosion proof rubber enamel as inside finish. It has a powerful 115 volt grease-sealed motor which operates on either alternating or direct current, 0 to 60 cycles. **Holt Mfg. Co., Dept. NS, 20th & Grove Sts., Oakland 12, Calif. (Key No. 796)**

Improved Natco Projector

The improved NATCO model 3019-2 16 mm. motion picture projector has unit construction which permits easy removal of the complete picture and sound mechanisms for repair and adjustment. Both the sound and the picture components are made as complete units that are fitted into the projector assembly and can be quickly removed by any operator for cleaning or minor adjustment. A screwdriver and the ability to use it are all that are necessary, thus making it possible for teachers or students to keep the projector in operating condition. Extra sound and picture units can be obtained should it be necessary to send one out for major repairs. **Natco, Inc., Dept. NS, 505 N. Sacramento Blvd., Chicago 12. (Key No. 797)**

Ameripol Rubber Mats

Drainboard and stove top mats made of Ameripol rubber are available in red, green, blue and black marbled, in 16 by 18 inch size. The mats protect enamel surfaces, reduce noise and protect dishes from breakage. Ameripol rubber used in the mats is resistant to oils and alkalis and thus retains its natural luster and has a long life. **The B. F. Goodrich Co., Dept. NS, Akron, Ohio. (Key No. 798)**

Bottle Water Cooler

A new bottle type electric water cooler has been designed for use where plumbing connections are not available or where bottled water is preferred. It is refrigerated by Kelvinator and built by Ebco.

Known as Model K-4-B, the new unit is attractively styled and finished in antique bronze metallic lacquer. It is constructed of heavy gauge, galvanized and bonderized steel and is resistant to rust and corrosion. Holes are provided on the upper right side of the cabinet for mounting any standard paper cup dispenser. The condensing unit compartment is easily reached and maximum ventilation is provided by attractive grilles. The top of the unit is brown vitreous porcelain enamel on steel with a black molded rubber bottle gasket. **The Ebco Mfg. Co., Dept. NS, Columbus, Ohio. (Key No. 799)**

Dishwashing Compound

Oakite Composition No. 66 is especially designed for use in automatic dishwashing and glasswashing machines. It is readily and completely soluble in water at normal temperature and has excellent wetting-out and free-rinsing properties, thus assuring film-free dishes and sparkling glasses. The compound also minimizes hard water scale build-up in washing equipment, thus reducing maintenance problems.

When used as directed, Oakite Composition No. 66 is said to remove lipstick deposits, vegetable and animal fats, milk, coffee stains and other food residues quickly and easily. **Oakite Products, Inc., Dept. NS, 157 Thames St., New York 6. (Key No. 800)**

Plastic Mesh Window Shades

The new Celanese Plastic Mesh Vimlite window shades offer the protection of ordinary window shades while letting light into the room. They are cheerful in appearance and effective in screening against glaring light. The new shades are easy to clean because the Vimlite surface is washable. The material will

not support fire or combustion and the plastic weave and plastic film coating are long wearing and durable. **Plastishade, Dept. NS, Yonkers, N. Y. (Key No. 801)**

Ace Hand Trucks

A new line of hand trucks has been developed in which the thrust from the load is carried directly from the nose plate to the frame. Carefully constructed of 16 gauge one inch O.D. furniture grade steel tubing, the trucks are designed for easy handling of crates, boxes and other supplies and equipment. There are 19 different models of varying size and capacity in the line, with either flat or concave crossbars, solid or semi-pneumatic wheels. **The Ace Co., Dept. NS, 12 N. Orange St., Ocala, Fla. (Key No. 802)**

Laboratory Evaporator



The Precision Laboratory Evaporator is designed for rapid evaporation of batch volumes up to 3 liters. Twelve liters of water per hour can be evaporated. The concentrated solution is drawn off through the drain cock at the bottom of the glass body after evaporation and the unit can be

modified for continuous feed.

All parts of the Evaporator are constructed of Pyrex glass or 18.8 stainless steel. The glass body is made in one piece and the steam chest will stand pressures up to 150 p.s.i. The unit can be thoroughly cleaned after each operation by flushing the entire system. Since it is self-contained, the entire unit can be mounted on a wall with integral brackets. **Precision Scientific Co., Dept. NS, 3737 W. Cortland St., Chicago 47. (Key No. 803)**

Anti-Slip Floor Wax

The new Vesta Gloss floor wax has been approved by the Underwriters' Laboratories. It is non-tacky, even in hot weather, anti-slip and produces a long-wearing wax finish, even where traffic is heavy. It is designed for use on all types of floors: terrazzo, asphalt tile, rubber tile, linoleum, tile, wood and composition. **Vestal Laboratories, Inc., Dept. NS, 4963 Manchester Ave., St. Louis 10, Mo. (Key No. 804)**

Bumper Assembly for Food Conveyors

A new bumper has been developed for Ideal Food Conveyors which offers inexpensive, easy replacement of only the part which is damaged or worn. The Ideal bumper is a one-piece aluminum alloy guard rail so designed that any part of the rubber section can be removed and easily replaced with a new section, thus reducing maintenance costs.

The rubber replacement is available by the foot and any worn part can be cut, lifted out and replaced with a new piece without special tools. The new design has resulted in reduction in the weight of the bumper while actually increasing its strength. **The Swartzbaugh Mfg. Co., Dept. NS, Toledo 6, Ohio. (Key No. 805)**

All Purpose Cleaning Mop

The Du-Fold mop is designed for washing all floors without scratching or swishing; wood — whether varnished, waxed, oiled or painted—linoleum, rubber composition, marble, tile or smooth cement. It can also be used to apply and remove carpet cleaning solutions and for cleaning washable walls and wall coverings. It is equally efficient for dusting or for applying liquid wax.

The Du-Fold all purpose cleaner has a handle long enough to permit its use without stooping, the cleaning unit is a sponge which holds sufficient water for any cleaning purpose and which is easily replaced when worn, and the mechanism squeezes the sponge virtually dry. The sponge-holding base is made of aluminum. **The Du-Fold Mop Mfg. Co., Dept. NS, 2150 E. 18th St., Cleveland 15, Ohio. (Key No. 806)**

Lifetime Tableware

Lifetime tableware, as its name implies, is designed to be practically indestructible. Molded from Melmac, an odorless, tasteless, nontoxic plastic, Lifetime Ware does not chip, crack or craze. It is not affected by food acids or washing compounds and may be boiled for sterilization.

The new ware is carefully molded, is functional and modern in design and has a fine luster. It is available in two attractive colors, Caribbean Blue and Bermuda Coral, and should be of particular interest because of its indestructibility as well as its fine appearance. School cafeterias with heavy china breakage might find it an answer to some of their problems. Lifetime Ware is manufactured by Watertown Mfg. Co., Watertown, Conn., and distributed by **George E. Weigl & Co., Dept. NS, 230 Fifth Ave., New York 1. (Key No. 807)**

Rubber-Coat Master Flat Paint

A new rubber base flat wall paint has been developed which gives excellent one coat coverage and from which ink, crayon, pencil marks and other stains can be easily washed. Known as Rubber-Coat Master Flat, the paint doesn't support flame even under intense heat, therefore adding to fire resistance of a room, is resistant to fungus and can be safely applied to new damp walls as well as to old walls.

The new paint is free-brushing and gives a highly decorative finish for corridors, rooms, cafeterias and other walls requiring frequent washing. It is available in ten colors in addition to white. **The Wilbur & Williams Co., Dept. NS, Greenleaf and Leon Sts., Boston 15, Mass. (Key No. 808)**

Germicide, Detergent

Rodacide is a new product which combines the germicidal and fungicidal properties of a quaternary ammonium compound with a compatible non-ionic detergent. It is designed for use in 2 and 3 tank dishwashing systems, for general cleaning of refrigerators, toilet areas, walls, floors and food storage areas. It can also be used as a liquid handsoap.

Non-irritating, non-corrosive, and non-spotting, Rodacide has no odor or taste and can be used with safety in the rinse water used for eating utensils. **Fairfield Laboratories, Inc., Dept. NS, Plainfield, N. J. (Key No. 809)**

Aluminum Roof Paint

Gilsalume is a new protective roof coating and insulation designed to provide low cost, all year roof protection and weather-proofing. An asphalt aluminum roof paint, Gilsalume is designed to deflect heat in summer, thus reducing interior temperatures, while protecting and preserving the roof surface from rain, snow, frost and dampness. It can be used on asphalt shingles, smooth or slate roll roofing, built-up, slag or metal roofs, nonporous masonry and outside metal work.

The product is applied with an ordinary paint brush or spray gun and is mixed ready for use. Only one coat is required and one gallon economically covers 300 to 400 square feet of surface. **United Gilsonite Laboratories, Dept. NS, Scranton, Pa. (Key No. 810)**

Fire Resistant Paint

"Fire Stop" is the name of a fire resistant paint which is designed to stop small fires before they get well started while providing a durable, attractive

finish on walls, ceilings and woodwork. It is reported that in a laboratory test a wall covered with "Fire Stop," when exposed to the direct blue flame of a Bunsen Burner for one full minute, merely formed brown blisters and flames extinguished themselves within 8 to 15 seconds after the burner was removed.

The paint is designed for utility and beauty. It is ready mixed and self-sealing, covering wallpaper, plaster, composition, concrete, steel, brick or wood in one coat. It is washable and is available in five pastel tones as well as white. "Fire Stop" dries to a fine textured flat finish surface. **Plicote, Inc., Dept. NS, 225 Galveston, Pittsburgh 12, Pa. (Key No. 811)**

Mastermade Movable Desks

The new Mastermade Streamlined Movable Desk has a base die stamped from one piece of steel which gives it increased rigidity and better balance on



the floor. The new streamlined design offers attractive appearance with increased efficiency and comfort. The chair has correct posture styling and the unit is designed to reduce fatigue and restlessness and to eliminate eyestrain. Both desk and seat are easily adjustable and the book box has a lift lid with noiseless, slamproof hinge. **E.W.A. Rowles Co., Dept. NS, Arlington Heights, Ill. (Key No. 812)**

Hydraulic Pipe Bender

The maintenance department will be interested in the new portable Aujax hydraulic pipe bender which is light in weight and easy to use. Complete with hydraulic jack which has screw extensions for maximum bends, the device is available in two sizes, the 24 inch unit complete with $\frac{3}{4}$, 1, $1\frac{1}{4}$ and $1\frac{1}{2}$ inch dies and the 30 inch unit complete with $1\frac{1}{2}$, 2, $2\frac{1}{2}$ and 3 inch dies. All parts are electric welded and reinforced. **Electric Cord Co., Dept. CUB, 30 Church St., New York 7. (Key No. 647)**

Sonomaster Record Player

The new Sonomaster record player is a completely self-contained instrument, with its own amplifier and speaker, housed in an attractive, leather-bound carrying case. It features the new GE variable reluctance high-fidelity pickup which is unaffected by changes in temperature and humidity and is equipped with a natural sapphire stylus which is soft-spring mounted and operates with only one ounce pressure. The pickup is designed for clean response and elimination of most of the noise caused by roughness or scratches on the record surface. The new unit accommodates records up to 16 inches in diameter at either $33\frac{1}{3}$ or 78 RPM.

The new 10 inch heavy duty permanent magnet dynamic speaker has been especially designed for the Sonomaster and offers exceptional fidelity of performance on both speech and music. The unit is adaptable to the pickup and amplification of special FM programs and a special optional FM Tuner is an accessory for this purpose. The instrument operates on 50 cycle, 110-120-130 volt AC. The complete unit weighs only 40 pounds and is $22\frac{1}{2}$ inches long, $16\frac{1}{2}$ inches wide and 11 inches high. It is manufactured by the Sandwick-Bowen Corporation for **Victor Animatograph Corp., Dept. NS, Davenport, Iowa. (Key No. 814)**

Counter Griddles

The full line of institutional cooking equipment made by the Detroit-Michigan Stove Company has been augmented by new Garland counter griddles. Four models are offered with a choice of black japan or stainless steel finish. Two models have two standard open top Garland burners in addition to the griddles and two have griddles only. Griddle sizes in both types are available in $18\frac{3}{4}$ by 24 inch and $18\frac{3}{4}$ by 30 inch sizes. The units have new streamline styling and other features which improve efficiency and convenience. **Detroit-Michigan Stove Co., Dept. NS, 6950 E. Jefferson Ave., Detroit 31, Mich. (Key No. 815)**

Premium Puddings

Pickwick Premium Pudding is now available in two additional flavors; coconut and coffee. Shreds of top grade Ceylon macaroon type coconut are used to flavor one new pudding and true coffee concentrate the other. This cream pudding, also available in chocolate, vanilla and butterscotch flavors, is packed in 5 pound hermetically sealed cans, six per case. **F. W. Boltz Corp., Dept. NS, 815 Moraga Drive, Los Angeles 24, Calif. (Key No. 816)**

Motor Driven Fluid Duplicator

The new REX-O-graph is completely automatic and is designed to save time and labor in duplicating work of all types, from simple copymaking to intricate systems work. Operation of the machine has been greatly simplified. The master is dropped in place, the lever moved to the "feed" position and the machine operates automatically, feeding and processing the sheets. When the required number of copies is run, the feeding stops automatically and the lever moves to the "idle" position. The operator is notified by an audible signal and the machine is stopped by a push on a button. The master can be automatically ejected when desired.

The new machine has automatic paper centering, 100 per cent roller moistening, feeding, counting, master copy ejection and copy stacking. The "Quick-Change" master guide and other features of the earlier models are incorporated in the new REX-O-graph. **REX-O-graph, Inc., Dept. NS, 3733 N. Palmer St., Milwaukee 12, Wis. (Key No. 817)**

Fairchild Console Recorder

The new Fairchild console recorder, Unit 539, is designed for recording on discs up to 17¼ inches in size. It is suitable for instruction in speech, language or music, for synchronizing of sound-on-disc with film and can be used for AM and FM broadcasting.

The console unit is mounted in an attractive wood cabinet and is complete with cables and connectors for attachment to an amplifier-equalizer for recording and direct playback. It is also available in a sturdy trunk for those desiring a portable unit. **Fairchild Camera and Instrument Corp., Dept. NS, 86-06 Van Wyck Blvd., Jamaica 1, N. Y. (Key No. 818)**

Edison Battery Maintenance

School shop instructors, maintenance men and bus service departments will be interested in the new Edison battery maintenance devices. The new Edison Electrical Hydrometer indicates battery charge instantly, tests any lead-acid battery regardless of size, gives proper charging rate, locates defective cells and indicates the condition of the battery easily, quickly and accurately.

The new improved Edison Thermostatic Charter-Tester combines fast charging, slow charging, battery testing before and after charge and voltage regulator testing in a complete unit. The new Edison 80 Amp. Portable Fast charger features an 80 Amp. charging rate, copper sulphide rectifier for extra

ruggedness, heavy duty transformer, automatic time clock shut-off and is light, full powered and economical. **Thomas A. Edison, Inc., Dept. NS, Kearny, N. J. (Key No. 819)**

Hand Linen Marker

The new Applegate automatic linen marker is a hand stamper sturdily constructed of chrome metal. It can be held securely in place with one hand while the other hand operates the plunger. Designed for use where the larger hand and foot operated machines are not needed, the hand stamper has the same dies used on the larger machines. They are hand tooled from solid metal for long wear and efficient marking. The new stamper should prove useful in marking gymnasium equipment, cafeteria or home economics department linens and for similar marking requirements. **Applegate Chemical Co., Dept. NS, 5630 Harper Ave., Chicago 37. (Key No. 820)**

Labels for Ditto Correction

Errors made in typing the litho-coated and carbon master used in Ditto duplicating machines can be quickly and accurately corrected with litho-coated Kum-Kleen labels. The Kum-Kleen label can be affixed over an error with finger-tip pressure without removing the master from the machine. The correction is then typed and the carbon deposited in the proper position on the label which is unaffected by moisture. It will remain on indefinitely or can be easily removed.

Kum-Kleen labels can also be used in the Ditto process for masking or blocking out certain portions of the master where only part is to be reproduced. The labels are applied over the copy to be deleted where they may remain permanently or can be removed. They are available in any size or shape. **Avery Adhesive Label Corp., Dept. NS, 36 W. Union St., Pasadena 1, Calif. (Key No. 821)**

Velsicol Insect Toxicant

Velsicol 1068 Insect Toxicant is a chlorinated hydrocarbon which is completely soluble in the usual organic solvents and completely miscible with deodorized kerosene. It is highly effective as an insecticide, in the recommended dilutions, for ants, flies, roaches, silverfish, bedbugs and other pests. When used as directed in an insecticidal base oil for the control of crawling insects, an active residual toxicity is said to prevent reinfestation of treated areas for a period of at least two months. **Velsicol Corp., Dept. NS, 120 E. Pearson St., Chicago 11. (Key No. 822)**

Bus Fire Extinguishers

The new Foamite Firefoam fire extinguisher is a splash-proof unit designed for use in vehicles such as school buses. The sealed stopper construction built into the top prevents the chemicals from mixing until required. The seal is easily released when needed and the extinguisher is ready for action.

The unit produces a fire-killing chemical foam equal to approximately 10 times its own capacity and is effective on oil and gasoline fires. The extinguisher has a stream range from 35 to 40 feet, thus being capable of reaching fires under the bus body as well as inside it. **American-LaFrance-Foamite Corp., Dept. NS, Elmira, N. Y. (Key No. 823)**

Plastic Expanding Screw Anchors

The new Sandscott plastic expanding screw anchors are designed for tremendous holding power, for simplicity in the anchoring of screws and to reduce cost. The overlapping internal and external slits give "concertina" expansion for dependable holding in any material. They can be used in any type of material with standard wood and lag screws. The anchors are resistant to water, moisture, weather and acids, have high impact strength, are simple to use without any special tools and are inexpensive. They are available in seven sizes and can be easily cut to any length required. **Holub Industries, Inc., Dept. NS, Sycamore, Ill. (Key No. 824)**

Marlite Polish

Marlite Polish is a new product designed to clean, wax and polish in one operation. It forms a lasting, protective, high-gloss film on smooth wood, plastic or metal surfaces. Non-inflammable and non-explosive, Marlite Polish has a base of Carnauba wax and can be used on furniture, refrigerators, plastic-finished wall and ceiling panels, automobiles, and other smooth surfaces. **Marsh Wall Products, Inc., Dept. NS, Dover, Ohio. (Key No. 825)**

Waterproofing Formula

Ranetite No. V Transparent Waterproofing has been improved by the addition of chemical compounds which improve its waterproofing ability and add the quality of fire-resistance. Made for use on stone, brick or stucco, this transparent liquid is designed to seal out dampness. The coating is applied with a brush and does not change color or appearance of walls. **Ranetite Mfg. Co., Inc., Dept. NS, 1917 S. Broadway, St. Louis 4, Mo. (Key No. 826)**

Product Literature

- Duriron acidproof sinks, sink strainers, traps and sanitary pipe and fittings are described and their uses illustrated in a 12 page manual—**Bulletin 703**—recently issued by The Duriron Co., Inc., Dayton 1, Ohio. The manual contains data on the composition of Duriron, its corrosion resistance qualities, use in chemistry laboratories, proper installation, complete check list of uses and specification requirements. (Key No. 827)

- A series of ten new duplicating workbooks to serve as teaching helps has been issued by Ditto, Inc., 2243 W. Harrison St., Chicago 12. The carbon has been removed for cleanliness and length of life of the books, and the pages bound. They are slip-sheeted to prevent offset and the masters will reproduce up to 300 copies each, either all at one time or in quantities needed. The books include "Pre-Primer—a Book of Little Books," "Getting Ready for Reading," "A Workbook for the First Grade," "Directed Study Lessons in Phonics," books I and II, "Language" for Grades II and III, "Playing With Numbers," and "Arithmetic for the First Half of Grade II" and "Arithmetic for the Second Half of Grade II." (Key No. 828)

- The Porter-Cable Machine Co., Syracuse, N. Y., has issued an attractive brochure reproducing a series of public relations articles which recently ran in the local newspaper. It has to do with general company policies and may be of interest to those having contact with this company and also as suggestive material in public relations programs. (Key No. 829)

- The uses, subjects covered and advantages in the audio-visual program of the use of **Teach-O-Filmstrips** are some of the features covered in a leaflet issued by the Audio-Visual Division, Popular Science Publishing Co., Inc., 353 Fourth Ave., New York 10. The subjects cover material of value from the primary grades through the senior high school and include teaching kits containing filmstrips, recordings and song books. (Key No. 830)

- Information on the new **Pacemaker Speed and Crown Graphic Cameras** can be obtained from a descriptive pamphlet issued by Graflex, Inc., Rochester 8, N. Y. Detailed data on these new cameras are given in words and pictures. (Key No. 831)

- Details of their plan for providing "Student Portraits—the Best at Lowest Cost" are given in a folder with that title issued by National School Studios, 5615 N. Richmond St., Chicago 45. (Key No. 832)

- The new Beckley-Cardy "School Buyers Guide No. 84 of Equipment and Supplies" gives up-to-date information on all types of school equipment and supplies including classroom, library and office furniture, playground equipment, blackboards and corkboards, classroom shades, visual education equipment, janitors' supplies, classroom and art supplies, duplicators, paper, handicraft material and teaching material. Catalog No. 84 lists all important items, many of which were not available during the war years, and many new items not previously listed by Beckley-Cardy Co., 1632 Indiana Ave., Chicago 16. The catalog is arranged for easier, quicker ordering and was compiled for the 1947-48 school year. (Key No. 833)

- "Mimeograph Tracing Pages for Schools" is the title of a new portfolio of more than 400 sketches and ideas on school subjects which can be duplicated for use in school newspapers, folders, programs and bulletins of all kinds. The material was drawn by professional artists and is presented on loose-leaf sheets for tracing on stencils. It is divided into sections including holidays, school activities and school papers and elementary school subjects. All drawings are made to fit two column or three column space and the portfolio is offered at low cost by A. B. Dick Co., 720 W. Jackson Blvd., Chicago 6, as an aid in school community relations programs as well as general school activities. (Key No. 834)

- Mouth-watering color photographs indicate the results to be obtained with the "New Recipes for Mass Baking" offered in a booklet issued by the Doughnut Corporation of America, 393 Seventh Ave., New York 1. Information on the various Downyflake Baking Mixes and recipes for many types of baked goods which can be made with them should prove of interest to those concerned with feeding problems. (Key No. 835)

- "Noise Reduction" for schools with repaintable Gold Bond Acoustifibre is described in a folder issued by National Gypsum Co., Buffalo 2, N. Y. Quick facts about this product, description, sound absorption data and illustrations of its use are included. (Key No. 836)

- "Sound . . . A Modern Control System" is the title of a new booklet issued by Executone, Inc., 415 Lexington Ave., New York 17. The complete line of voice-paging and music systems manufactured by this company is described, together with information on the value of these systems in quickly locating personnel, relieving switchboard congestion, broadcasting general announcements or programs and other helpful data. (Key No. 837)

- Information on **L.K.R.**, the waterproofing and rust prevention chemical for metal, cement, brick, stone, cinder blocks and wood, is given in a folder and a bulletin issued by L.K.R. Chemical Products Corp., 3105 Park Ave., Detroit 1, Mich. The history of this product, which is applied by brushing to condition walls, floors, foundations and other parts of the building against water and rust, is outlined in the bulletin and full data on its use are included in the folder. (Key No. 838)

- The "New Electric-Aire Automatic Hand Dryer" is described and illustrated in a folder recently issued by Electric-Aire Engineering Corp., 209 W. Jackson Blvd., Chicago 6. Suggestions for the uses of the new dryer and illustrative examples make up the folder. (Key No. 839)

- United World Films, Inc., 445 Park Ave., New York 22, has recently issued a new "Catalog of Recreational Motion Pictures." Films are indexed according to subject and type with brief descriptive information on each. (Key No. 840)

- All of the models in the line of intercommunication systems developed by the **Talk-A-Phone Co.**, 1512 S. Pulaski Rd., Chicago 23, are illustrated and described in a 12 page catalog recently issued by this company. The low cost standard system which provides standard master cabinets with matched sub-stations and incorporates the "Silent Feature" developed by this manufacturer wherein noises at the sub-stations are cut out even though the sub-stations can originate calls is fully described as are the de luxe and special de luxe systems which offer additional advantages in intercommunication. All models made by this company are included in the catalog. (Key No. 841)

- "Pyrene Water Type Fire Extinguishers" are described in a new circular issued by the Pyrene Mfg. Co., 560 Belmont Ave., Newark 8, N. J. The cartridge-operated 2½ gallon Pyrene water type and Pyrene anti-freeze fire extinguishers, which are easily maintained by simple examination and by weighing the gas cartridge, are illustrated and described. (Key No. 842)

- Full length 16 mm. feature films especially selected for school showing are listed in the new catalog published by Films Incorporated, 330 W. 42nd St., New York 18. Films are grouped under such headings as Roman Times and the Rise of Christianity; the Empire Idea; Makers of American History and similar subjects. In addition to the feature films, many short subjects of educational and entertainment interest are included. (Key No. 843)

- Interesting data on the subject of lighting are given in Catalog No. 48, **"Over-All Lighting by Wakefield,"** issued by The F. W. Wakefield Brass Co., Vermilion, Ohio. The catalog begins with a discussion of "What Wakefield Over-All Lighting Means" and this is followed with descriptive information on the various lighting units developed by this company. Blue prints give complete technical information on the units and specifications and computations make this 32 page catalog a helpful reference volume for those concerned with lighting, especially in classrooms. (Key No. 844)
- **Westinghouse Teaching Aids** for the 1947-48 school year are described in a new booklet issued by School Service, Westinghouse Electric Corp., 306 Fourth Ave., Pittsburgh 30, Pa. Educational materials listed in the catalog include booklets, charts, motion pictures and slide films for use in science, home economics, vocational agriculture, and industrial arts classes as well as in general assemblies. Much of the material is available in quantities for teaching purposes. (Key No. 845)
- The full line of **National Cash Registers**, including the most recent developments, is illustrated and described in a folder recently issued by the National Cash Register Co., Dayton, Ohio. (Key No. 846)
- **"A Personal Guidance Program"** is the title of a folder issued by National Forum Inc., 407 S. Dearborn St., Chicago 5. Descriptive information on the National Forum Guidance Series for the four high school years, the list of all material forming this series which is designed "to help teachers promote the wholesome growth and adjustment of their students" and prices of the material are included in the folder. (Key No. 847)
- An attractive leaflet has been prepared by Weber Costello Co., Chicago Heights, Ill., to describe its new **Hyloplate Lite Site Chalkboard**. The leaflet tells the story of color in chalkboard and gives specifications for installation of Hyloplate Lite Site Chalkboard. (Key No. 848)
- Detailed information on **Model 1-A and Model No. 2 Jackson Dishwashers** is given in two new folders issued by Jackson Dishwasher Co., 3703 E. 93rd St., Cleveland 55, Ohio. The machines are fully described with diagrammatic illustrations of their operations. Model No. 2 is designed to meet the needs of institutions feeding large numbers while Model 1-A is designed for those with a smaller dishwashing load. (Key No. 849)
- **"Life Photographic Exhibitions,"** based on the history of Western culture articles appearing in Life magazine, are described in a folder issued by Life Photographic Exhibition, 9 Rockefeller Plaza, New York 20. This educational project for schools and colleges is fully described in the folder which gives details of the exhibits which are composed of enlarged photographs with text. The new sets are produced by a gravure process, each subject being covered by from 24 to 30 panels. The new process makes it possible to produce the units at a nominal price. As a result they are being offered to educational institutions as a permanent exhibition and the first three units available in the new form cover "The Medieval World," "The Age of Enlightenment" and "Venice." (Key No. 850)
- A new folder has been issued giving detailed information on **"The '400' Series, National Heat Extractor, Hand Fired, Oil Fired, Stoker Fired."** Designed for dependable heating of institutions, this unit is described by diagrammatic drawings and text. The material was prepared by the National Radiator Co., Johnstown, Pa. Also available are folders on the "100," "200," and "300" series heaters which are designed for smaller institutions and homes. (Key No. 851)
- Use of the Vari-Typer to **"Prepare Copy for Printing and Duplicating"** is explained in a booklet issued by Ralph C. Coxhead Corp., 333 Avenue of the Americas, New York 14. The booklet is a comprehensive study of the printing processes being used in schools, described in text and picture, and the application of the Vari-Typer method to this problem. (Key No. 852)
- **"Greater Accuracy Makes Sense—Greater Speed Makes Sense"** is the title of a leaflet issued by Clary Multiplier Corp., 1524 N. Main St., Los Angeles 12, Calif. Information on the Clary Multiplier and its uses is given in detail. (Key No. 853)
- **Stonhard**, the resurfacing material for floors, roofs, walls and other areas, is described in detail in a booklet recently issued by the Stonhard Co., 401 N. Broad St., Philadelphia 8, Pa. Illustrations and text show how this material is used to repair and resurface badly worn and broken areas. (Key No. 854)
- The new **1947-48 Film Rental Catalog** issued by Institutional Cinema Service, 1560 Broadway, New York 19, contains information on hundreds of educational and entertainment films for 16 mm. sound and silent projection. The catalog is indexed according to subject and films are listed alphabetically by title. (Key No. 855)
- **Young America Films, Inc.**, 18 E. 41st St., New York 17, is offering a new idea in presenting slidefilms to the educational field. Their **YAF Package Plan** offers a special YAF model of the Viewlex all-purpose projector with a wide choice of slidefilms and slides from the lists carried by this company. It will be appreciated by educators that this plan will permit the accumulation of a library of slidefilms at the same time as the projector is purchased. (Key No. 856)
- **Catalog 47B** has recently been issued by Stillfilm, Inc., 8443 Melrose Ave., Hollywood 46, Calif. The company also announces the release of ten reels of fairy tales and nursery rhymes in full color, ten nature subjects and ten Christmas subjects. (Key No. 857)

Film Releases

"Butterfly Botanists," "Rivers of the Pacific Slope," "Jack's Visit to Costa Rica," "Oxygen," "Posture Habits," all 16 mm., 1 reel, sound, color or black and white. **Coronet Instructional Films**, Dept. NS, Coronet Bldg., Chicago 1. (Key No. 858)

"Making Books," "Wool," 16 mm., 1 reel, sound, black and white. **Encyclopaedia Britannica Films Inc.**, Dept. NS, 20 N. Wacker Drive, Chicago 6. (Key No. 859)

"Food and Nutrition," 5 filmstrips, each approximately 50 frames in length, and 50 Kodachrome slides on the same subject. **Audio-Visual Div., Popular Science Pub. Co.**, Dept. NS, 353 Fourth Ave., New York 10. (Key No. 860)

"Latitude and Longitude," 16 mm., 1 reel, sound, color. **United World Films, Inc.**, Dept. NS, 445 Park Ave., New York 22. (Key No. 861)

Suppliers' Plant News

The Weston Electrical Instrument Corp., Newark, N. J., manufacturer of electrical instruments, announces the opening of a new engineering and administration building on the plant grounds. The new building was erected to permit the necessary expansion of engineering and administration facilities and release space required for manufacturing. (Key No. 862)

Klenzade Products, Inc., Beloit, Wis., manufacturers of chemical specialties for cleaning and sanitation, has opened a new branch office and warehouse, to be known as Klenzade Western Co., in the Chamber of Commerce Bldg., Denver, Colo. The new branch is designed to serve the southwestern area of the country. (Key No. 863)

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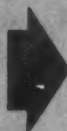
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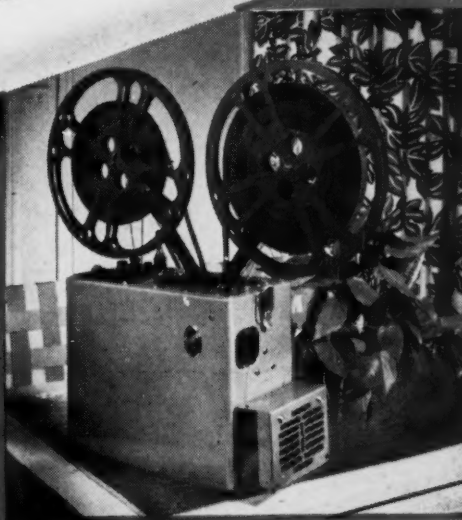
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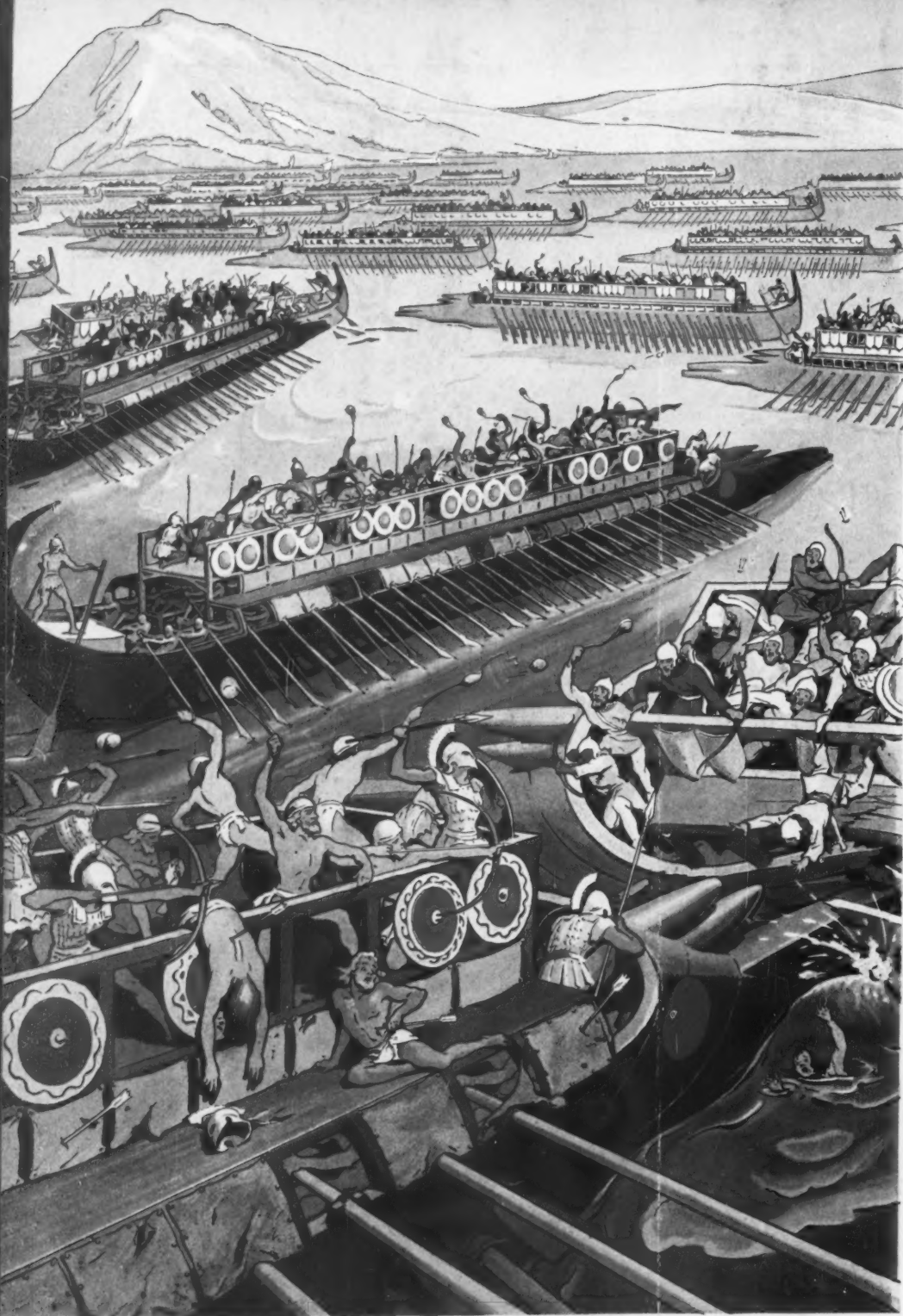
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